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Page 7, line 10, for "Orioles" read "Oriole's."

Page 22, line 6, for "give" read "gave."

Page 28, line 37, for "specius" read "species," last line, for "speciments" read "specimens."

June number. For No. "52" on front cover read "51."

Page 36, line 13. For the period substitute a comma. Line 35, for "Pomrine" read "Pomarine."

Page 45, line 20, for "Rusty Blackbird" read "Bronzed Grackle."

Page 55, line 3, for "Downey" read "Downy."

Page 62, line 19, for "appears" read "appear."

Bulletin No. 52, the page numbers are thrown forward because in making up the forms, the printer counted in the two pages of advertising beyond blank page 70.

Page 75, line 4, for "presnt" read "present."

Page 75, line 16, for "are from" read "for 1905."

Page 80, line 36, for "Ruffled" read "Ruffed." Line 39 add "northern."

Page 84, line 19, for "Mergauser" read "Merganser."

Page 85, line 1, for "Chactura" read "Chætura." Line 13, for "quiscalus" read "quiscula."

Page 92, for paragraph 22 substitute the following: Icteria virens. Yellow-breasted Chat. On May 22, 1906 (Scioto Co.) I found a set of 2 heavily incubated eggs. On May 17, 1901 (Pike Co.) I found another heavily incubated set. On May 31, 1905, I found a set of 4 fresh eggs in Scioto Co. What is the reason for this peculiarity in breeding habits?

Page 91, line 2 from bottom, for "frequently" read "frequents."

Page 94, line 21, for "intirely" read "entirely."

Page 99, line 8, after "fectly" insert "certain."

Page 102, line 3, for "store" read "stone."

Page 103, line 9 from bottom, for "to" read "too," and for "too" read "to."

Page 106, line 24, for "Priarie" read "Prairie."

Page 109, line 24, for "any" read "my."

Page 112, line 22, after "found" insert "it."

Page 121, bottom line, for Hyocichla" read "Hylocichla."

Page 123, line 6 from bottom, for "objection" read "objective."

Page 132, line 16, for "Hemingway" read "Henninger."

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SOME OBSERVATIONS AT WEEDSEED INN.

BY ALTHEA R. SHERMAN.

Not every person who enjoys the companionship of birds is permitted to go a-field every day, or even once each week. The majority of us must be content the greater part of the year with the bird study obtained in our own dooryards. It is the purpose of this article to refer to some of the bird items noted at Weedseed Inn. The latitude of this inn is that of 43° north. Its longitude is nearly that of 91° west from Greenwich, which locates a spot of prairie land six miles from the Mississippi River and one mile and a half from the timber belt that borders that river. This bird hostelry covers a space of three acres, which embraces an orchard, meadow-land, and a portion of a ravine. The latter in spring and autumn is wet enough to entertain some of the water fowls.

Beginning with January the weather for six weeks is usually too severe and the location too exposed for the inn to entertain many birds. Until the last of December Blue Jays have usually called almost every day, and occasionally a Hairy Woodpecker has stopped for a meager lunch, and a mild spell has brought out a few Juncos. But the winter of 1903–4 was an exception. Chickadees came often and pecked at some suet hung out for them. Flocks of Redpolls came several times and bird music was furnished by a Northern Shrike that called often and announced his presence with one of his squeaky airs. Plum trees full of thorns, and a meadow full of mice with but little snow on the ground made Weedseed Inn a favorite caravansary for him. He was often seen impaling a mouse on a

thorn, and the hindquarters of his prey were some times found in the trees after he left.

Toward the last of February the call of the Prairie Horned Lark comes up from the adjoining fields, and it is not long before our Robins and Phœbes return to us. None of our birds have ever been marked, but a neighbor had a male Robin that "the fool with a gun" deprived of a foot. This bird with his mate for two years has nested in her yard. Will another springtime bring him back is a problem soon to be solved.

We feel very certain that some of our birds return year after year. Several Phœbes stay about for four or five weeks, but at nesting-time it is but one pair that remains to occupy the old nest in the barn that has been the birthplace of so many Phœbes. A crack in the flooring above the nest affords a fine opportunity for observing Dame Phœbe's method of raising a family. She does a little refitting of the nest every spring, and on an early day in May lays her first egg. Every morning thereafter between five and nine o'clock an egg is added to the clutch until five jewel-like treasures are to be found. It has been a source of interest to notice the variation in the periods of incubation; that some broods remain longer in the nest than others; that sometimes eight and again ten days elapse from the time the nest is deserted by the first brood before Phœbe lays the first egg of her second set. To watch her five little ones go to bed night after night on the lowest branch of an apple tree has been an interesting experience. Mr. Phœbe must have taken these young ones to another summer resort, since they disappeared from Weedseed Inn about the time Mother Phœbe began her second sitting.

For several years this hostelry has been the home of a pair of Brown Thrashers. They arrive very early in May, and about the middle of that month the first egg is laid. For the past two seasons their first nest for the year has been in a lilac bush about fifteen feet from the house; the same nest being occupied both years. Possibly they might feel that "the world is out of joint" if no human being peeped into their nest each day.

Then there is the Flicker's hole in the barn. It has been there a long time, for it is remembered that he is now a large lad who as a little fellow once asked, "Doctor, where do the

Woodpeckers go when they go in the barn?" The hole gives entrance to a nesting-place four by fifteen inches with a depth of eighteen inches. This space is covered by a removable board in which is a peep-hole commanding a good view of the interior, a rare place for observation. The question of each year is "What bird will take possession of the Flicker's hole?" English Sparrows certainly will if not watched and routed. Sometimes a Flicker raises a brood there, another year a Wren will raise two broods in one summer. The favorably located nests of Phœbe, Flicker, Wren, and Brown Thrasher have each yielded sufficient topics of interest for a story by itself.

Many of the common birds nest about the place, but their nests are not always found. One year a Bob-white had a nest containing fourteen eggs not more than ten feet from the plowed ground of the garden in which people worked daily. Unfortunately a mowing machine ran over the spot and destroyed the nest before mankind discovered it.

During migration days Weedseed Inn entertains its share of guests. Early in the spring one may look for a day now and then when a pair of Hermit Thrushes spends the whole day here, moving about until the gathering gloom of night hides them from view, but they are never seen the following day. On other days the maple trees are covered with Rusty Blackbirds, enough to fill four and twenty pies, and the air is stirred with music, enough to fill a whole country side. For about a week in both spring and fall a dozen or more of Wilson's Snipe prod and paddle in the marshy spots of the ravine, and the question arises, "Are they not the same birds that tarry each season?" One spring day comes to mind when the trees fairly swarmed with warblers. I then had little experience in naming the birds and could identify but few of them.

The hour in which I identified the greatest number of birds was from 7:30 to 8:30 o'clock on September 24, 1904. Almost all of them were seen from one window. The birds observed there were the Flicker, Phœbe, Blue Jay, English Sparrow, White-throated Sparrow, Song Sparrow, Meadowlark, Philadelphia Vireo, Bell's Vireo, Myrtle Warbler, Palm Warbler, Brown Thrasher, House Wren, Chickadee, Bluebird and Robin. A few minutes after half past eight Vesper Sparrows and a Brown Creeper were seen, but a Catbird that nested in

the yard during the summer did not appear until later in the day. Add to this list of nineteen the birds seen during the six previous days of the week which were Black-billed Cuckoo, Olive-sided Flycatcher, Baltimore Oriole, Goldfinch, American Redstart and White-breasted Nuthatch. This lot for one week was equalled in number on May 25, 1904, when twenty-six species of birds were observed at Weedseed Inn. They were Mourning Dove, Flicker, Red-headed Woodpecker, Ruby-throated Hummingbird, Kingbird, Phœbe, Chebec, Blue Jay, Bobolink, Cowbird, Red-winged Blackbird, Meadowlark, Baltimore Oriole, English Sparrow, Chipping Sparrow, Song Sparrow, Swallow, White-eyed Vireo, Maryland Yellow-throat, Yellow-breasted Chat, Brown Thrasher, House Wren, Catbird, Bluebird, Robin, and another which could not be satisfactorily named.

Early rising and a day devoted to observing the birds would, no doubt, secure a much longer list of bird guests for one day at this bird hostelry. A list of seventy-nine species named and many others that were not identified suggests in a limited degree what has been seen in one yard by a tyro in the dooryard study of birds.

BREEDING HABITS OF PARULA WARBLER (*Compsothlypis americana usneæ*) IN NEW JERSEY.

BY MARK L. C. WILDE.

Parula Warblers are very common during the breeding season, in suitable localities, throughout the lower half of the state of New Jersey. Commencing at Brown's Mills, on the Rancocas Creek, situated in Burlington county some fourteen miles east of Mount Holly, and journeying southward to the Delaware Bay and the Atlantic Ocean, these birds can be found breeding on the edge of all swamps, streams, lakes, ponds, and mill dams, where there is a fairly good growth of that bearded lichen (Usnea barbata), which many of the south Jerseymen deign to call "Beard-Moss."

While the climatic conditions, to a very large extent, may be responsible for the presence and growth of this so-called "Beard-Moss," one thing is certain, and that is, this lichen absolutely controls the distribution of the Parula Warbler, as

far as the state of New Jersey is concerned. Wherever there is an abundant growth of Usnea barbata a colony of these beautiful warblers will be found breeding, for, strange as it may seem, they construct their nests in it, build their nests of it, and they search in and around it for insects, on all the trees, bushes, and vines, where it grows.

Before proceeding further I wish to say a few things relative to this lichen (Usnea barbata). I shall hereafter call it "Beard-Moss," only because that name has been associated in my mind for so many years, in connection with Parula Warblers. It therefore comes to me more naturally than any other name possibly could. "Beard-Moss" must be seen to be appreciated.

It is a long, stringy, or hairlike-growth, grayish-green in color, and when covered with dew or moistened by the rain, it feels quite soft and is pleasant to the touch. In the dampened condition it gives you the impression of elasticity; so much so that I have often tried to make it stretch, as it should were it composed of rubber. It grows in a tangled mass the lower strands only being combed out, as it were, and left to float in the passing breeze. It grows on the tree limbs, and is thick in proportion to the thickness of the limb from which it hangs, excepting when it grows on vines or bushes where the twigs are close together; then the whole growth is a solid mass of "Beard-Moss." In New Jersey it thrives best on the lower limbs of the trees and on small bushes and vines near the surface water of the swamps, streams, or mill ponds, and in the lakes or ponds it mostly grows at the "head," or upper ends, where the water, coming down, empties into these bodies of water.

Imagine being at the "head" of one of these ponds, where all the trees and bushes are draped and festooned with this beautiful growth, and here, on the warm summer days, you are amid the Parula Warblers on their ideal breeding grounds.

The growth of the "Beard-Moss" at Brown's Mills is very scant as compared with the growth along the Maurice River up to about Willow Grove pond, located in eastern Salem county, and even here it is not nearly so abundant as in lower Cumberland, Atlantic, and Cape May counties. The farther

south you go the thicker will be the growth of the "Beard-Moss," hence the Parulas are more abundant.

Parula Warblers breed in colonies, owing to the "Beard-Moss" occurring in separate and distinct patches, where conditions are most favorable to its growth. Some of the ponds where I once found many of their nests, are now almost deserted, simply because the mill-dams have broken, or the water has been drained off, causing the "Beard-Moss" to dry up and die, and the Parulas have taken up quarters in some other neighboring locality where Usnea barbata thrives more luxuriantly.

Parula Warblers arrive from the South in the lower portion of the state about the first of May, apparently already paired, and within about ten days or two weeks nest building has begun. Full sets of fresh eggs are usualy deposited in Cape May county by May 20th, while further north, at Brown's Mills, Burlington county, the date would be about June 1st.

Almost all of the many nests I have examined contained four eggs. I have never found over four, but occasionally some nests contain but three. It will therefore be seen that four eggs constitute a full set under normal conditions.

On several occasions I have spent from seven to ten days at a time right among these Warblers on their breeding ground, from early morning until dusk, and by not distrubing their nests, they have become so accustomed to my presence as to take little notice of me. I have moved along slowly and quietly in my boat, passing in and around the bushes and trees containing their nests, often within three or four feet of the sitting birds. The feeding birds were likewise just as unconcerned as those which were incubating their eggs.

Nests can be found from the border to the middle of the mill-ponds and open swamps, and may be looked for anywhere from under the tip of an outstretched or drooping branch, to against the tree trunk, or in the smaller bushes; and from one foot above the water to twenty feet high. Generally, however, on account of the "Beard-Moss" growing more abundantly on the lower branches of the trees and on the bushes, five feet may be considered the average height.

The females alone attended to the construction of the nest, while the males were leisurely feeding in and around the tan-

gled moss-covered branches, often clinging to them upside down in Chickadee fashion, reaching here and there for lurking insects, and flying a short distance, they would pause for a moment to emit their sweet song.

The nest is invariably placed in a hanging position. The female usually selects a tree or bush in which the "Beard-Moss" grows quite thickly, and here, within the tufts, she loops and weaves together the inside particles of moss, forming a beautiful nest, much resembling the style of the Baltimore Orioles, only of course on a very much smaller scale. The bird is careful that the moss shall be left hanging in its natural way from the bottom and sides of the nest, and often so conceals it that it can only be found by close and careful searching. Into the structure the bird then carries thread-like particles of the moss collected from some near-by tree. I have never known them to use moss from the tree or bush in which their nest is built for lining purposes.

"Beard-Moss" is used exclusively by some Parulas in lining their nests, while others add a few horse-hairs and a yellow down which is taken from the stems of swamp ferns. The nest is very compact and closely woven, occasionally having a few pine-needles stuck into it around the outside, probably to help support and pin it to the hanging particles of moss.

The entrance, which is always on a level with the top of the bowl, is made through the moss on the side, very often directly under the limb where the moss is parted. The walls of the bowl, being at least half an inch in thickness, form a platform which is sometimes flattened out, resembling a small mat, on which the bird rests when entering or leaving the nest. Some nests have two or more entrances, either left as peep windows for escape, or unintentionally caused by the thinness of the moss above the bowl. I have examined a few nests where the entrance was made from the top, the nest having been suspended either between two twigs, or between the trunk of a tree and an adjoining tuft; but such cases as these are rare, and may be considered departures from their regular style of building. From a very large number of nests of this species examined during the past ten years, nearly all were entirely or partly roofed over, with the entrances from the sides, as previously described. One nest collected some years

ago, was suspended from a two-inch limb, containing little or no moss outside of that of which the nest was constructed; but this I do not consider a typical nest.

The inside measurements of the nests vary, ranging from about one and a half to two inches both in depth and diameter.

The eggs show a remarkable variation both in size and shape. They have a white ground color, and are more heavily dotted with reddish brown and lilac at the larger ends, often forming a ring around them.

Camden, N. J.

SUMMER BIRDS OF SUMMIT (UNION COUNTY), NEW JERSEY, AND VICINITY.

BY LA RUE K. HOLMES.

Summit is located on the crest of the Second Mountain, at an elevation varying from 300 to 520 feet above sea level. The surrounding hills were at one time well wooded, but most of the timber now standing is of recent growth, only a few small tracts of virgin forest now remain and these are being rapidly cut. The cover is for the most part deciduous, there being but few groves of coniferous trees in this neighborhood that I know of. The ground is furrowed in every direction by streams, mostly of a small size and a river (the Passaic), runs through the center of the territory covered by this list. Several fresh-water swamps of considerable area are within walking distance of Summit and are frequently visited.

As will be seen from the list, Summit is located between the Carolinian and Alleghanian zones; and such Carolinian birds as Bæolophus bicolor, Thryothorus ludovicianus, Icteria virens; and Alleghanian birds as Dendroica pensylvanica, Habia ludoviciana, etc., are found breeding here.

1. **Aix sponsa.** Wood Duck.—A rare summer resident, formerly more common. A pair succeeded in rearing a brood of 8, this last summer (1904) within three miles of Summit. The parent birds with the young were seen daily by many people and were apparently devoid of fear.

2. **Botaurus lentiginosus.** American Bittern.—A rare summer resident in the large fresh-water marshes. I only know of three nests having been found.

3. **Ardetta exilis.** Least Bittern. A summer resident, probably rare. I have no nesting record.

4. **Butorides virescens.** Green Heron. A rather common summer resident in all suitable localities. Never more than one pair breeding in a woods (?).

5 **Nycticorax n. nævius.** Black-crowned Night Heron. A large colony of these birds was formerly located in this vicinity; but after having been attacked many times by plume hunters and eggers, was finally broken up. I have no recent record of its having bred in this section.

6. **Rallus elegans.** King Rail. A nest containing nine eggs of this species was found in the Great Swamp several years ago. It may breed there regularly.

7. **Philohela minor.** Woodcock. A rather rare summer resident. Breeds early in the spring. Nests have been found while snow was yet on the ground.

8. **Bartramia longicauda.** Bartramian Sandpiper. A very rare summer resident. I know of but one field inhabited by this bird and as a rule two pairs of birds breed there each season.

9. **Actitis macularia.** Spotted Sandpiper. A rather rare summer resident; breeding chiefly in low-lying corn fields; at least that is where nests have most often been found.

10. **Colinus virginianus.** Bob-white. Formerly common. Now a rare summer resident, but seems to be increasing in the last year or two.

11. **Bonasa umbellus.** Ruffed Grouse. The same may be said of this, as of the preceding species.

12. **Zenaidura macroura.** Mourning Dove. Rare. Some years more common than others.

13. **Circus hudsonius.** Marsh Hawk. A few pairs breed in the larger fresh-water marshes.

14. **Accipiter velox.** Sharp-shinned Hawk. A very rare summer resident.

15. **Accipiter cooperi.** Cooper's Hawk. The nest of this species is met with more often than that of *A. velox*, and judging from individuals seen I should say it was much more common.

16. **Buteo borealis.** Red-tailed Hawk. A very rare summer resident and becoming rarer with the cutting of the virgin forests on the higher hills.

17. **Buteo lineatus.** Red-shouldered Hawk. Our commonest breeding hawk.

18. **Buteo latissimus.** Broad-winged Hawk. A very rare summer resident.

19. **Falco sparverius.** Am. Sparrow Hawk. A not uncommon summer resident; next to *B. lineatus* in point of numbers.

20. **Strix pratincola.** Am. Barn Owl. An extremely rare summer resident. I know of but one nest having been found and have

a record of five young birds not fully feathered having been caught in a trap set for hawks and owls in a pasture.

21. **Asio wilsonianus.** Am. Long-eared Owl. A rare summer resident.

22. **Syrnium varium.** Barred Owl. Formerly a rather common resident but now rapidly disappearing.

23. **Megascops asio.** Screech Owl. A not uncommon resident; rapidly decreasing in numbers.

24. **Bubo virginianus.** Great Horned Owl. Never common, but now almost entirely exterminated locally. I doubt if a pair breeds nearer than ten miles of Summit. It has, however, been captured, during the early winter (December and January) in steel traps set on posts in meadows near Summit within the last year or two, and it may breed in the wilder portion of the county.

25. **Coccyzus americanus.** Yellow-billed Cuckoo. A rather common summer resident; more abundant some years than others.

26. **Coccyzus erythrophthalmus.** Black-billed Cuckoo. Not as common as the preceeding, and equally erratic.

27. **Ceryle alcyon.** Belted Kingfisher. A rather common summer resident; nesting in all suitable localities.

28. **Dryobates villosus.** Hairy Woodpecker. A rather rare summer resident.

29. **Dryobates pubescens medianus.** Downy Woodpecker. A common summer resident.

30. **Melanerpes erythrocephalus.** Red-headed Woodpecker. Locally common.

31. **Colaptes auratus luteus.** Northern Flicker. The commonest breeding woodpecker.

32. **Antrotosmus vociferus.** Whip-poor-will. Formerly a common summer resident, but I have no record of any having been seen in the summer for the past fifteen years.

33. **Chætura pelagica.** Chimney Swift. An abundant summer resident.

34. **Trochilus colubris.** Ruby-throated Hummingbird. A common summer resident.

35. **Tyrannus tyrannus.** Kingbird. A common summer resident.

36. **Myiarchus crinitus.** Crested Flycatcher. Rather common in woodland.

37. **Sayornis phœbe.** Phœbe. An abundant summer resident.

38. **Contopus virens.** Wood Pewee. A common summer resident in woodland.

39. **Empidonax minimus.** Least Flycatcher. A rather rare summer resident.

40. **Cyanocitta cristata.** Blue Jay. Abundant.

41. **Corvus brachyrhynchos.** American Crow. Abundant.

42. **Dolichonyx oryzivorus.** Bobolink. Locally common. Apparently decreasing in numbers.

43. **Molothrus ater.** Cowbird. Common.

44. **Agelaius phœniceus.**. Red-winged Blackbird. Abundant in the fresh-water marshes.

45. **Sturnella magna.** Meadowlark. Common.

46. **Icterius spurius.** Orchard Oriole. Locally rare.

47. **Icterus galbula.** Baltimore Oriole. Common; breeding even in the heart of the city.

48. **Quiscalus quiscula.** Purple Grackle. Common. Breeds in colonies in conifers.

49. **Passer domesticus.** English Sparrow. Abundant everywhere.

50. **Astragalinus tristis.** American Goldfinch. Common.

51. **Spizella socialis.** Chipping Sparrow. Abundant in the settled portions; rare in rural districts.

52. **Spizella pusilla.** Field Sparrow. Abundant summer resident.

53. **Melospiza cinerea melodia.** Song Sparrow. Abundant summer resident.

54. **Melospiza georgiana.** Swamp Sparrow. Abundant summer resident.

55. **Pipilo erythrophthalmus.** Towhee. Common summer resident.

56. **Cardinalis cardinalis.** Cardinal. A rare summer resident; only two or three records.

57. **Zamelodia ludoviciana.** Rose-breasted Grosbeak. A common summer resident.

58. **Passerina cyanea.** Indigo Bunting. A rather common summer resident.

59. **Piranga erythromelas.** Scarlet Tanager. A common summer resident.

60. **Petrochelidon lunifrons.** Cliff Swallow. Formerly common; has now entirely disappeared.

61. **Chelidon erythrogaster.** Barn Swallow An abundant summer resident.

62. **Riparia ripara.** Bank Swallow. Never very common, but now entirely extirpated.

63. **Stelgidopteryx serripennis.** Rough-winged Swallow. A very rare summer resident.

64. **Ampelis cedrorum.** Cedar Waxwing. A common summer resident.

65. **Vireo olivaceus.** Red-eyed Vireo. Abundant summer resident.

66. **Vireo flavifrons.** Yellow-throated Vireo. Rather rare.

67. **Vireo noveboracensis.** White-eyed Vireo. Common along streams.

68. **Mniotilta varia.** Black-and-white Warbler. Rather rare.

69. **Helmitherus vermivorus.** Worm-eating Warbler. An extremely rare summer resident.

70. **Helminthophila pinus.** Blue-winged Warbler. A common summer resident.

71. **Dendroica æstiva.** Yellow Warbler. Common summer resident.

72. **Dendroica pensylvanica.** Chestnut-sided Warbler. Rare summer resident; but apparently increasing as a summer resident.

73. **Seiurus aurocapillus.** Oven-bird. Commonest breeding warbler.

74. **Geothlypis trichas brachidactyla.** Northern Yellow-throat. Common summer resident.

75. **Icteria virens.** Yellow-breasted Chat. Rather common summer resident.

76. **Setophaga ruticilla.** American Redstart. A very rare summer resident; but one record.

77. **Galeoscoptes carolinensis.** Catbird. Abundant summer resident.

78. **Toxostoma rufum.** Brown Thrasher. Common summer resident.

79. **Thryothorus ludovicianus.** Carolina Wren. A very rare summer resident; but two records.

80. **Troglodytes aëdon.** House Wren. Rather common.

81. **Cistothorus stellaris.** Short-billed Marsh Wren. Locally common; breeds in a very restricted area.

82. **Cistothorus palustris.** Long-billed Marsh Wren. Locally common in fresh-water marshes and along Passaic river.

83. **Sitta carolinensis.** White-breasted Nuthatch. Common.

84. **Bæolophus bicolor.** Tufted Titmouse. Rare; becoming more common.

85. **Parus atricapillus.** Chickadee. Common.

86. **Turdus mustelinus.** Wood Thrush. Abundant.

87. **Turdus fuscescens.** Wilson's Thrush. Rather common.

88. **Merula migratoria.** Robin. Abundant.

89. **Sialia sialis.** Bluebird. Abundant.

The foregoing list I believe to be fairly complete; there are however, several birds whose status, as far as this locality is concerned, I am in doubt of, and have thought it best to eliminate them from the list.

It will of course be understood that the relative abundance of birds mentioned in this list is applicable to the breeding season only.

AN UNUSUAL FLIGHT OF HAWKS IN 1858.

BY RUTHVEN DEANE.

The following letter is not only of interest in itself, but the fact that it is addressed to Audubon's two sons, John Woodhouse and Victor Gifford, adds to its historical value. While it is well known that there are conspicuously large migrations of hawks every spring and fall, when birds are almost continually in sight and at times lasting several consecutive days, yet such a one as here described quite reminds us of the enormous flights of the Passenger Pigeon in the early days, as related by Audubon and Wilson.

As to the thirteen specimens shot being those of the Goshawk, would seem most unlikely, as all authorities for the state quote the species, not only as a winter visitor, but one of quite rare occurrence.

I am much indebted to Miss M. R. Audubon, who has recently presented me with this letter:

"Cincti, Sept. 27th, 1858.

"My Dear Sirs,

I wish to communicate an important fact in natural history, never known to me before, and which I would hardly have believed, had it not been witnessed by an old friend, who is a good observed of nature—Mr. G. C. Coney[1]—in whose veracity I can place the most implicit confidence.

"On the 17th inst., at 8 o'clock A. M., he went out with his gun, when he happened to see, what he considered a rather large flock of hawks, but upon casting his eyes around, he saw as far as he could see a continuous stream of them coming.

"This flock was about 40 yards in width, and took by his watch one and a half hours to pass.

"They came from N. N. E. and flew S. S. W. They sailed in a direct line with extended wings, but at certain distances some of them kept wheeling around and around in a circle, and were joined by others, while some of them floated off again with the main stream.

"He shot two of them which were a little lower than the rest. As it was such an unusual sight, when he saw them he immediately ran and shouted for some of the neighbors, who all witnessed the facts.

[1] George C. Coney, St. Marys, Ohio. An enthusiastic and well known sportsman, as well as a keen observer of birds. Died several years ago.

"The place where this occurred was on a great reservoir in Mercer County, Ohio, midway between St. Mary's and Celina. This body of water feeds the Miami Canal, is ten miles long, and from three to five miles in width. During the summer season there are always some of these hawks—a smaller species—and also a few of a much larger kind—are always about there. Owing to the facility of procuring their food, as there are a great many young ducks, squirrels, etc., they also do great damage to the farmers' chickens. One friend had upwards of one hundred young chickens and only forty-five are now remaining.

"He shot thirteen of the species in controversy, which according to his description must have been the Goshawk (Astur palumbarius) and also shot many of the other two kinds during this summer, but never saw more than from two to ten (the highest number) in one flock together before.

"Such migration of hawks I believe was never heard of before, and the question is will they do so annually? and in day or night time. If the first, I should think they would have been seen before.

"I was on the prairies in August, grouse were scarce, owing to the first brood being nearly all destroyed by the heavy rains in May and June,, when these level prairies were all under water. The young ducks, however, were very plenty. When will Agassiz be out with his fish?

Truly yours,

J. S. UNZICKER.[1]

"Messrs. J. W. and V. G. Audubon, N. Y."

[1] Dr. J. S. Unzicker, Cincinnati, Ohio. Born August 11, 1812, died April 18, 1876. A prominent physician, an ardent sportsman, and lover of birds, and had been personally acquainted with Audubon and his sons.

A TRIP TO GARDINER'S ISLAND.

that my wish was realized.

BY FRANK BRUEN.

It would be presumptuous for me to try to write up the birds of Gardiner's Island after the admirable article contributed by Mr. Frank M. Chapman to the Nov.-Dec. (1903) number of Bird-Lore; but it would be nearly impossible to visit Gardiner's Island and write nothing at all. Ever since reading the above-mentioned article, I have had a consuming desire to visit the island; but it was not until June 17, 1904,

The approach, of Mr. Ford and myself, to the island was not in the romantic fashion described by Mr. Chapman, but in an *intermittent* gasoline boat from Saybrook Point, Conn.

Beaching our boat we found what proved to be the best camping spot on the island; it was also richest in the number of bird species. Although three o'clock in the afternoon when we landed, nevertheless, thirty-four (34) species of birds were noted in the immediate vicinity.

Our stay from June 17th to 21st was all too short to properly cover the island in detail, but still we felt that we had seen a great deal. Most of the birds mentioned by Mr. Chapman were seen; all, I believe, excepting the Wood Duck, Woodcock, and Indigo Bunting; and in addition to his list were the Great Blue Heron and Red-tailed Hawk. The latter was seen three different days—an Ishmaelite among birds, for every feathered creature was against him. When first seen our attention was attracted by his "exhaust steam" scream as he went off, chased by Purple Grackles. The next day at another part of the island some Grackles and Ospreys were after him, and the third day some Crows were after him. He kept in the virgin forests as much as possible. It was a question in our minds whether he was trying to live there or wished to leave the island but could not owing to the vigilance of the Ospreys.

The Osprey display was simply amazing to us who had never seen them at such close quarters nor in such abundance. Most of the nests examined had young birds from one to ten days old as nearly as we could judge; a few had eggs only or eggs and just hatched young. On the beach at one place were four nests, placed on the ground, in a distance of 100 feet; one nest had so *little material* in it that it compared closely, except in size, with the *most elaborate*(?) of the terns' nests. We noted 18 nests of the Osprey in use, but undoubtedly there were as many more on the island. At one time 38 Ospreys were in sight, counting those easily seen on their nests and those in the air.

In the two tern colonies 35 nests containing 89 eggs were found; without making an exhaustive search. The south colony is really two, being divided by an inlet in which the water was too deep to wade at the time of our visit, or more nests would have been recorded. One nest had four eggs, but most

of them had three eggs; others of one or two eggs each were probably not yet complete.

We found the English Sparrows and Purple Grackles nesting in the crannies of the Ospreys' nests. The sight of the Britishers in the depths of the virgin forests was a most unwelcome one to us.

To us the Grackles, which were abundant, formed the one bad feature of the island bird life; for they seemed to be continually upon the watch to prey upon the young and eggs of the smaller birds. Many times as we passed through the woodland paths (one cannot go outside of them owing to the dense growth of green or cat briers), Ovenbirds, Redstarts ,etc., would scold us for coming near their nests or young; and almost immediately the Grackles would be seen slipping up to see what they could find.

A storm the last day of our stay on the island prevented our looking for the Great Blue Herons' nests.

A novelty to us was the constant chatter of the Yellow-breasted Chat at night. Almost the first bird to greet us after we landed, he kept it up all night excepting an interval between 8 and 10 o'clock; whenever Mr. Ford or I awoke during the night he was going full blast.

We were disappointed in the length of our list for the island, for we could have found a larger number of species with the same effort, at home; but the special features of the list more than made up for its shortness. We missed our Yellow-throated and Warbling Vireos, Purple Finches, Whip-poor-wills, Blue Jays, Bobolinks, Phœbes, and House Wrens, and some others,—to be sure some of them may have been there but missed by us. But one pair of Bluebirds was seen. No Least Flycatcher was seen or heard, but he seems to vanish or lose his voice at about this time even in Connecticut

We feel under many obligations to Mr. Gardiner, the owner of the island, for his courtesy in allowing us to camp there.

Subjoined is a list of the birds noted:—

1. Downy Woodpecker, 4.
2. White-breasted Nuthatch; few seen.
3. Chickadee; few seen.
4. American Goldfinch; few seen.
5. American Crow; abundant.

6. Song Sparrow; common.
7. Red-tailed Hawk, 1.
8. Bobwhite; common.
9. Herring Gull; 12 or 13 seen.
10. Meadowlark; 6 seen.
11. Bluebird, 2.
12. Robin; common about the homestead only.
13. Red-winged Blackbird; common.
14. Purple Grackle; abundant.
15. Cedar Waxwing, 1.
16. Northern Flicker, 4.
17. Field Sparrow; few seen. Sheep graze too close for cover,
18. Belted Kingfisher. rather common.
19. Cowbird, 3.
20. Savanna Sparrow; 10 seen.
21. Chipping Sparrow; 2 seen.
22. Barn Swallow; few near barns.
23. Chimney Swift, 3.
24. Towhee; fairly common.
25. Black and White Warbler; 3 seen.
26. Brown Thrasher; several.
27. Spotted Sandpiper; fairly common. Saw crow carry off young one.
28. Bank Swallow; several large colonies.
29. Catbird; fairly common.
30. Northern Yellow-throat; common.
31. Oven-bird; common.
32. Yellow Warbler; common.
33. Wood Thrush; fairly common.
34. Red-eyed Vireo; common.
35. Baltimore Oriole; 2 seen.
36. Kingbird; few seen.
37. American Redstart; fairly common.
38. Yellow-breasted Chat; 2 seen.
39. Black-billed Cuckoo; few seen.
40. Scarlet Tanager, 1.
41. Grasshopper Sparrow, 9.
42. Crested Flycatcher; fairly common.
43. Ruby-throated Hummingbird, 1.
44. White-eyed Vireo, 2.
45. Northern Parula Warbler; 7 noted where usnea moss grew.
46. Wood Pewee; common.
47. Nighthawk, 4.
48. Green Heron; fairly common.
49. Black-crowned Night Heron; common.
50. English Sparrow; common.
51. Osprey; abundant.

52. Orchard Oriole, 1.
53. Common Tern, 200.
54. Black Duck, 2.
55. Carolina Wren, 3.
56. Great Blue Heron, 5.
57. Bald Eagle, 1.
58. English Pheasant, 20.
59. Piping Plover, 5.

NESTING OF THE GRASSHOPPER SPARROW IN SOUTHWESTERN PENNSYLVANIA.

BY J. WARREN JACOBS.

The Yellow-winged Sparrow *(Conturniculus savannarum passerinus)* is distributed in limited numbers, during the nesting season, throughout Greene county, in the extreme southwestern corner of Pennsylvania. Their favorite resorts are in the hillside fields and along the low ridges. In pasture fields, not too cleanly kept, and where the wild "sink field" mats its frail vines through the carpet of blue grass, the birds choose a site for a nest. Not every apparently good field has its pair of birds, and indeed one may pass through several such fields without hearing the song of this bird or flushing the female from her nest. However, it must not be inferred from this that birds have not escaped notice, or that a nest has not been passed without the sitting bird taking flight.

The bird itself is very shy; its song pleasing, but not distinguishable a very great distance, being easily drowned by the rattle of numerous ever-singing chats and the medley of a dozen other species which haunt the neglected fields. The female is a close sitter, not leaving her post until almost trampled upon. This makes nest-seeking very tedious; and the apparent scarcity of this species renders uncertain the result of a careful search.

One of the very first nests new to me was of this species, and stumbled upon accidentally on top of the ridge overlooking my home town, away back in the '80s, in about the second year of my bird studies. The old bird fluttered from under my feet and darted down over the hill to a brier clump. It was a new bird to me then, but I got a fairly good look at it; and a year

or two later, when the little first Edition of "Davies' Nest and Eggs" came out, I cleared up the identity, which, by the way, was made easier by the fact that no other sparrow, having similar nests and eggs, was likely to be found here. The eggs, I discovered, after getting home, were badly incubated, and I lost them at the end of the blow-pipe.

Several years went by without this bird or its nest coming under my observation; and when, in 1893, I was preparing a collection of Pennsylvania eggs for exhibition at the Chicago World's Fair, I almost grieved over the loss of this set, but the species was represented by a set of three eggs from New Jersey. A bird apparently so rare, I thought, could be found nesting only by chance, and after several fruitless hunts, I gave up hope of ever replacing the lost set. Thus the matter stood for some years, when a friend brought me a nest and five eggs of a sparrow, unknown to him, which he had found by accidentally stepping against a bunch of grass, flushing the bird. These proved to be eggs of the Yellow-winged. The eggs were fresh, and were found on July 8, 1898, in a pasture field about six miles west of Waynesburg. The composition of the nest was of grass and grass-rootlets, lined with fine grass. Measurements: Outside diameter, 4.5 in.; inside, 2.5 in. Outside depth, 2.0 in.; inside, 1.3 in. It was sunken in the ground and well concealed by the tuft of grass.

Comparing these eggs with two sets taken lately by myself, I find them to be much smaller, and exhibiting a less mottled appearance where the markings are thickest, which is in the form of a broken wreath around the larger end of each. The ground color is pure white, which is the case with the other two sets mentioned, and the predominating color of the markings is burnt sienna, intermixed with fewer blotches of lavender and heliotrope purple. In shape they are broad or rounded ovate, and measure .73x.56, .72x.56, .71x.56, .67x.54, and .69x .56 inch.

The finding of this set of Yellow-winged Sparrow revived my old enthusiasm to find the bird nesting. Therefore, during the next few years, I spent many hours in fruitless search, until June 21, 1903, when, as on my first discovery, I accidentally flushed a bird from her nest sunken in the ground and well concealed by "sink field" vines, in a neglected field

on the side of a hill. I was returning home in the evening, after a day spent in the woods, and in crossing this field I stepped entirely over the nest before the old bird fluttered out and took refuge in a brier clump. The eggs, four in number, were fresh, and are rather heavily marked, the blotches forming a solid wreath around the larger ends of three and a mottled cap on the fourth; the colors being vinaceous-cinnamon, vinaceous, lavender, heliotrope purple, and burnt sienna—the first predominating. Elliptical-ovate in shape, and measure .78x.58, .79x.58, .79x.60, and .78x.57 inch.

The last nest found by me was on July 21, 1903, and like others, was stumbled upon quite accidentally. I was out berry-picking with my nephew and some of his young friends, when one of the party called my attention to a bird he had just flushed at his feet. Seeing it was a Yellow-winged Sparrow, I began a search for its nest, and soon found it quite near to where the boy was standing. It was composed wholly of grass and was placed in a depression five inches deep. It contained four eggs in which embryos were beginning to form. The same description of coloring given for the last will answer for this set, except that the mottled cap is lacking. They are also slightly more pointed than the last. Size: .81x.61, .81x.62, .80x.60, and .78x.61 inch.

Taking the dates into consideration, this bird probably raises but one brood in this part of its range, and its nesting period extends throughout June and July, with care of young sometimes reaching into August.

SOME NOTES ON MICHIGAN WARBLERS.

BY J. CLAIRE WOOD.

There is a certain piece of thick woods here covering about twenty acres of ground. Its exact location is Private Claim 49, Ecore township, Wayne county. The more dense portions are free of undergrowth, but in places the forest floor is concealed by the thickest kind of brush tangle. Elm, red oak, maple, beech, butternut, chestnut and sycamore abound in the order named. A luxuriant growth of wild grape vines is a characteristic feature of the butternut section and near the

easterly end is a second growth of paw paw trees while beyond the easterly margin lie low swampy bush lands with openings grown to marsh grass. The woods is long and narrow and divided its entire length by a county drain six feet deep and twenty broad at the top. As no other timber of a similar nature exists in the neighborhood this is a favorite resting place and resort for the woodland migrants.

For the purpose of ascertaining the approximate time of departure and relative abundance of the late warblers I devoted what days I could spare to this woods and worked it so thoroughly that it is doubtful if any species escaped notice. October 23 was the last day I searched this woods, but the warblers were gone except the Myrtle and one Northern Yellow-throat. As, in the question of identification, the greater importance is attached to specimens secured a * indicates that one or more were taken on the date to which it is prefixed. The numbers exceeding 25 were estimated, but all less than that were counted.

1904	Sept. 25	Sept. 28	Oct. 2	Oct. 6	Oct. 16
Black and White Warbler	*1		*1		
Nashville Warbler		*1			
Western Parula Warbler		*12			
Black-throated Blue Warbler	*6		*15	*3	
Myrtle Warbler		*6	*24	*6	*125
Bay-breasted Warbler	*7	*6	*3		3
Black-poll Warbler	*3	*125	*3		*3
Blackburnian Warbler	*2				
Black-throated Green Warbler	*3	*1	*75		
Connecticut Warbler				*1	
Mourning Warbler	1			1	
Northern Yellow-throat			*3		
American Redstart	*2	6	*2		
Oven-bird	15	7			
Water-Thrush	1				

Two Rose-breasted Grosbeaks* were noted on the 25th. A few Olive-backed and about 50 Grey-cheeked Thrushes were observed on the 28th. Green-crested Flycatchers* were last seen on the 2d; also Catbirds, Red-eyed Vireos* and Scarlet Tanagers.* The Blue-headed Vireos were common inclusive of the 2d, but only one on the 6th. Last Yellow-billed Cuckoo on latter date.

About three o'clock one foggy morning early in September, 1887, large numbers of the Myrtle Warblers were congregated about the electric light tower at the corner of Woodward and

Adams avenues of this city. There were also smaller numbers at the next tower but, although they appeared to fly against the glass, none were injured. At the other tower, however, the birds kept falling at the rate of about one per minute. I returned at eight o'clock and started to count the dead but soon give it up. It is sufficient to say that there were five or six bushels of them. They were all Myrtles with the exception of one Field Sparrow.

SOME APRIL AND MAY WORK SUGGESTED.

During the season of migration we are so occupied with the movements of the birds northward that we generally forget that there are other sides to bird study. When do the different species of birds begin to build their nests? How long does it take a pair to complete a nest? Are the eggs deposited on successive days? How long is the period of incubation? Do both birds take part in the incubation, or does one sit continuously while the other feeds her, or how is it? How rapidly do the young grow, and when do they leave the nest? When do the feathers first appear, and how are the downs attached to them? Do the birds use the old nest a second time, and if so do they remodel it, clean it, or use it as the young left it? How do the old birds feed the young during the first few days after hatching? These, and a host of other questions can be answered by anybody who can and is willing to give some time to watching nests that may be so placed that they can be seen at close range. Have an eye to your immediate surroundings in addition to specially favored places where you love to go. Prove that the slur often aimed at amateur field work is not applicable in your case at least. Such work needs to be done.

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Edited by LYNDS JONES.

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EDITORIAL.

The editor has Mr. Frank L. Burns to thank for collecting a considerable part of the copy for this issue.

The next number will contain two local lists of more than usual interest to readers in general. Carefully prepared local lists are always in demand.

The editor's headquarters will remain at 5623 Drexel avenue, Chicago, Ill., until further notice in the June number. Correspondence relating to advertising, subscriptions, and articles intended for print should be addressed to him there, but letters of request for sample copies or back numbers will receive prompt attention if addressed to Oberlin, Ohio.

It is not too early to be thinking about the May migration work. In spite of the splendid record made last year there is plenty of room for a better record yet. Study the weather map, if you have opportunity, and with its help select the best day and then work your field to your fullest capacity. Put your locality and your work in the first rank for wealth of bird life during the migrations. The editor cannot promise to print all "All Day" lists, but he will gladly print a list of those who make such lists with the number of species recorded if each person will send his list for inspection and possible tabulation.

In *Bird Lore* for November-December, Mr. Ernest Tompson Seton in introducing an excellent outline for the study of birds, writes in substance that the time has gone by when adequate good can result from ordinary collecting in well-known regions and that the experts of our museums, knowing the value of birds as they do, better than any other class of men, are the only ones who should be allowed to collect bird skins to-day. Just what is meant by ordinary collecting is not apparent, yet the student seeking to faithfully carry out his suggestions will find it expedient if not absolutely necessary to good work in fully one-quarter of the thirty-one sub-

heads offered, to take life occasionally. Were the museums many times as numerous as they are at present, there would still be many individuals unable to reach them through lack of time, distance or other causes. Would it be right to exclude such persons from collecting? In what manner have a certain coterie attained superior knowledge of the value of kinds over that of another class also studying at first hand? All honor to the museum expert! He is usually a hard and conscientious worker, who, not for value received, but perhaps for a consideration, collects, preserves and studies birds for the benefit of the public. Likewise the humble amateur—without the consideration. No one has, or should have, a monopoly of the knowledge of the value of a single species. With all respect for the writer, such sentiments are pure rot, unworthy of him and unjust to those at which they are aimed. F. L. B.

In *American Ornithology* for January, Mr. Reed has given us much excellent matter relating to the Warblers of the genus *Geothlypis* together with a plate showing the members in color, one-half natural size. F. L. B.

Prof. H. A. Surface, Economic Zoologist of Pennsylvania, has made a strong point of bird protection since he entered the office, in order that the people could understand why the birds should be preserved from an economic standpoint. The result has been most gratifying. Never before has there been such a strong sentiment for the protection of birds in the State. F. L. B.

Mr. Frank Bruen has an interesting article on the winter birds of Bristol, Conn., in a recent issue of a local paper. F. L. B.

Mr. W. H. Brownson, of the Portland *Adveriser*, is now the editor of the *Journal of the Maine Ornithological Society*, and publishes in the former for January 14, "A List of the Birds Observed in Cumberland County (Maine) in 1904," including 146 species; also on January 21, "A visitor from the North Pole," an account of the capture of a Dovekie, blown in by a storm. F. L. B.

The editor is sorry that space did not permit the printing of the New Year Censo-Horizons this time, because other matter of more importance was received. He is glad to be able to report, however, that there was more material sent in than could be printed in this number. If this were always true the editor would not only be saved a considerable amount of worry, but a better Bulletin would always be insured. Original field work which has for its object the increase of our knowledge of the birds is always in great demand, and earnestly solicited. We have scarcely more than made a beginning in the study of bird habits.

NOTES.

THE ROBIN'S RETURN—Much has been said of late concerning the intelligence of birds. It is evident that birds are more or less intelligent. Whether they act entirely by instinct or whether they have some mental faculties developed to a more or less degree we cannot say with certainty, but some of their actions show an amount of intelligence.

In the spring of 1903 a young lady, living in a suburb of Philadelphia, Pa., found a young Robin which had evidently fallen from a nest and was starving to death. She took it into the house and fed it and as it grew she became very much attached to it and it became very tame. After it was full grown it was allowed entire freedom. Every day it would go out and forage for itself but would always return at night to the house. A window was left open a few inches for it and every evening it would come into the house to roost, leaving again early in the morning.

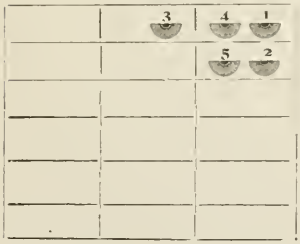
In the late fall when the Robins were migrating it too disappeared, presumably following its kin to their winter residence.

This spring (1904) the lady was attracted by a Robin chirping noisily in a tree near the house. She hardly thought it possible that her Robin had returned but she went into the yard and spoke to the bird in the tree. The bird at first seemed a little shy but would let her approach quite close to it. At last it seemed to get more confidence and finally flew to her outstretched hand and alighted upon it.

This summer it has again been roosting within the house every night and spending the day abroad.

This not only proves that the bird returned to its haunts of the preceding summer but it proves also that it was able to recognize a human face. It apparently knew its friend when it saw her after an absence of several months.—Chreswell J. Hunt.

TRANSPLANTING A ROBIN.—Happening to be in the foundry flask yard July 4, 1904, I noticed a large cope leaning against a pile of flasks, the baffle boards of which made a series of shelves upon which were several robin's nests; the arrangement being as in the subjoined sketch. Nests Nos. 1, 2 and 3 were complete; Nos. 4 and 5 being merely foundations. Nos. 1 and 2 contained one egg each partly incubated I supposed. Visiting the nests July 6, two eggs were found in nest No. 1. I called the attention of the yard foreman to the nests and asked him if he would try to protect them from harm. He exclaimed, "Well, that is hard luck, for we need that cope today." After talking it over a little, we



concluded to take another cope as nearly like the first as could be had, putting it in the same position as the first and moving the nests to the same relative positions and await results.

This plan was carried out excepting the arangement of the nests; for on July 7, when I again visited the nests, they were placed as shown below—the foundations Nos. 4 and 5 not having been moved.

However, when I approached, Mrs. Robin was seen sitting on nest No. 1. On July 8, she was on nest No. 2, but on the 9th, 11th, 12th, 13th and 16th she was on No. 1. On July 20 two young birds were found and the nest was deserted on the 29th. Nest No. 3 was completed but did not seem to have been used.

Mrs. Robin will no doubt remember her hard trials but eventual triumph over difficulties, a long time and steer clear of the flask yard; but I felt abundantly repaid for the experiment. Another time I should put all the eggs in one nest.—FRANK BRUEN, Bristol, Conn., December, 1904.

MOVING A WREN'S HOME.—For the past two seasons a pair of House Wrens have built their nest in a crevice formed at the joint where brace and post meet on the veranda of the Bristol Golf Club Tea House. From May 11 to 27, this year (1904) the building was dismantled and moved to a new site about three-fourths of a mile distant. When the veranda was taken down the wren's nest came out and fell to the ground. The men employed noticed the birds at that time but do not remember whether they were about afterwards or not.

July 18, a pair of Wrens, presumably the same, were still using the crevice at the new location.

My chain of evidence I know is weak in the above, and I write this more to draw out the experience of other members of the club than for its scientific value.—FRANK BRUEN, Bristol, Conn., December, 1904.

BIRD BUILDERS AT FAULT.—Apropos to Mr. Bruen's "Transplanting a Robin." John Burroughs in *Bird Lore*, page 85, 1901, under the title of "A Bewildered Phœbe," gives an instance of a builder at fault. The bird confronted by new conditions, blunders, but through its great industry is not altogether baffled by the multiplicity of building sites. I have frequently observed the same trouble when the Robin or Pewee selected a place midway on a beam or plate partitioned by rafters into short stretches exactly alike, particularly where there was no resting perch in full view of the nesting site. Naturally, when a corner of the building is chosen in the beginning, there is no difficulty, for it may be easily distinguished. Less commonly the Bluebird, House Wren and Purple Martin err when building in a many-roomed box, also doubtless

the smaller Woodpeckers are sometimes bewildered when found digging indifferently in one of two or more cavities in the same stub. In fact the antiquated notion that a bird knows exactly what it is about at all times and places is no longer tenable.—FRANK L. BURNS, Berwyn, Penna.

SOME NEW JERSEY RECORDS.—I am indebted to Dr. W. R. Wharton the past season for some substantial additions to my collection. The folowing kinds, taken in Salem county, New Jersey, near the Delaware river, on the dates given, and handled in the flesh by the writer, seem worthy of special mention.

Shoveler or Spoon-billed Duck (*Spatula clypeata*). A female, September 23. One or two are said to have been met with every fall. Considered quite rare along the coast.

Florida Gallinule (*Gallinula galeata*). Two immature males, September 2. Local sportsmen shoot an occasional specimen in mistake for one of the larger Rails.

Willet (*Symphemia semipalmata*). A single male, October 8. This was in all probability a transient; although the species was at one time a summer resident.

Duck Hawk (*Falco peregrinus anatum*). An immature female, October 21. Another specimen was secured at the same place some time ago.—FRANK L. BURNS, Berwyn, Penna.

BOOK REVIEWS.

Taylor's Standard American Egg Catalogue, second edition, An Exchanger's Guide and Collector's Handbook. By Henry Reed Taylor. Price 25 cents. Alameda, California.

In eleven pages of preliminaries, some racy, some serious, the author and F. M. Dille discuss several matters of interest, among which the one on "Egg Valuations" will prove of general interest because of the previous varying values, the determining factor seeming to be the abundance of the species in the market, and the possessor's ability to secure prices in exchange. Purchase prices have always been far below exchange prices. It appears from this article that the prices herein quoted are the result of a sort of general agreement among those especially interested. The list proper is, of course, merely a check-list with prices attached where any can be determined. Thus something over 250 of the species and sub-species listed are not accompanied by prices. A careful perusal of the list sets one wondering if .100 for Black Tern and 5.00 for American Woodcock may not really stand for .10 and .50. Other evidences of rather careless work on the part of the printers leaves a degree of disappointment. But one cannot expect a list of this sort, especially at the price quoted, to be perfect. It is beyond question of great value to those who deal in eggs in any way. It suggests the possibility of a revival of the days now two decades

past when Oology was in the forefront. In our opinion Oology as such and such alone will never be able to stagger to its feet again. As a part of Ornithology in the broad sense it has its legitimate and necessary place, but as a distinct science it has and ever will prove a failure, for the very simple reason that it does not possess within itself the elements of a separate science. L. J.

The Birds of the Rockies. By Leander S. Keyser.

In this large octavo there is a sympathy of the author with his mountain surroundings and of the artist, Louis Agassiz Fuertes, with the conception of the book, that one rarely finds. No three-color-process colored pictures here, but finely executed colored engravings, full-page half-tone and sketchy marginal engravings. A good, clear and clean type makes easy reading of an entertainingly written account of a bird-lover's experiences in the Colorado mountains. If the author possesses any fault of execution it lies in giving himself

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too fully to the enamoring influences of the mountain environment. The price of the book, reduced to $1.50, will make it appeal to every lover of outdoors. L. J.

Annual Report of the Division of Zoology, p. 159–180, also Reports of the Ornithologist for 1902 and 1903, p. 227–232, and 611–616, by Prof. H. A. Surface, in the Pennsylvania Report of the Department of Agriculture, 1903.

I will quote the following as worthy of special mention: "During the summer the Turkey Vultures (*Cathartes aura*) were unusual in their northern flight. They have been seen as far north as Williamsport, and a few at State College, Center county. * * * During the fall a Cardinal (*Cardinalis cardinalis*) was seen by us in Center county. * * * I have evidence that the American Crossbill (*Loxia curvirostra minor*) nests in the central part of Pennsylvania, in the fact that during the middle of the summer of 1902 a pair of old birds accompanied by four of their young were seen for two days upon the State College campus, in Center county, feeding upon the mites of the cockscomb elm gall. During the winter, which was unusually long and severe, there was a decided immigration of northern birds into our State. Especially remarkable among these were the Pine Grosbeak (*Pinicola leucura*), the Crossbills (both species of the genus *Loxia*), the Snowflake (*Passerina nivalis*), and the Pine Siskin (*Spinus pinus*). The severity of the winter resulted in killing most of the Quail (*Colinus virginianus*) of our State, many of the Wild Turkeys and some of the Ruffed Grouse. * * * * During the early portion of this spring (1904) there has been an unusual flight of the aquatic birds. In the vicinity of Harrisburg, gunners have shot several species of Wild Ducks, the Holbœll's Grebe, several specimens of the Whistling Swan (*Olor columbianus*), and one specimen of the Trumpeter Swan (*Olor buccinator*). We have been fortunate in securing speciments of these

very rare birds in this State, and hope to receive funds for having them permanently preserved in a State museum. There was also an unsusal flight of Gulls along the Susquehanna river after the breaking up of the ice, and this was doubtless due to the masses of ice filling the bays and covering their feeding grounds near the mouth of the river." Modest quarterly and monthly bulletins with a mailing list of upward of twenty-four thousand names, have taken the place of the costly and highly colored picture books of a few years ago, and earnest efforts are being made to advance the knowledge of economic ornithology. For the first time in a number of years, continuous work is being done in the central part of the State, and while it might be said in criticism that more specific information would in no wise detract from the popular nature of the records of the occurrence of certain of the rarer species secured, an immense amount of work is being done. F. L. B.

PUBLICATIONS RECEIVED.

Amateur Sportsman, Vol. XXXII, No. 3.

American Ornithology, Vol. V, Nos. 1, 2.

Bird Lore, Vol. VII, No. 1.

Boys and Girls, Vol. III, No. 4; Vol. IV, Nos. 1, 2.

Bulletin of the Michigan Ornithological Club, Vol. V, No. 4.

Bulletin No. 18, U. S. Department of Agriculture, Biological Survey. Distribution and Migration of North American Warblers. By Wells W. Cooke.

Bulletin No. 19, U. S. Department of Agriculture, Biological survey. Hunting Licenses, Their History, Objects and Limitations. By T. S. Palmer.

Bulletin 222, Michigan State Agricultural College Experiment Station.

Bulletin 150, 156, Ohio Agriculture Experiment Station.

Bulletin No. 69, Pennsylvania State College Agriculture Experiment Station.

Bulletins of Pennsylvania Department of Agriculture, Vol. II, Nos. 2, 8, 9.

Cassinia, Vol. III.

Colorado College Studies, Science Series. Vol. XI, Nos. 30, 31, 32, 36, 37, 38.

Condor, The, Vol. VII, No. 1.

Journal of the Maine Ornithological Society, The, Vol. VI, No. 4.

Maine Sportman, Vol. XII, Nos. 136, 137.

Naturalistie Canadien, Le, Vol. XXXI, No. 12; Vol. XXXII, No. 1.

Ohio Naturalist, The, Vol. V, Nos. 2, 3.

Ornithologische Monatschrift, Vol. XXIX, Nos. 11, 12; Vol. XXX, No. 1.

Report of the Michigan State Board of Agriculture, 1904.

Summer Resident Birds of Brewster County, Texas. By Thos. H. Montgomery, Jr. From The Auk, Vol. XXII, No. 1.

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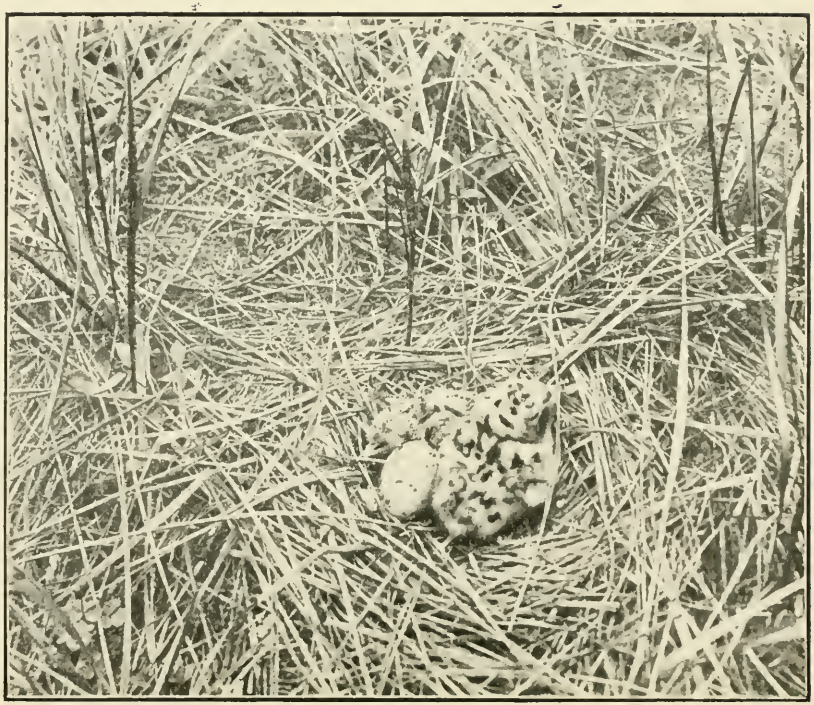

COMMON TERN. (Sterna hirundo.)
Egg, Young Just Hatched, Young Two Days Old.
Woepecket Id., Mass.

THE
WILSON BULLETIN
NO. 51.
A QUARTERLY JOURNAL OF ORNITHOLOGY
VOL. XVII. JUNE, 1905. No. 2

A YEAR WITH THE BIRDS IN NEW YORK CITY.

BY GEORGE E. HIX.

The year 1904 was a very good one for birds in New York City, not only the common species being abundant, but the number of rare species observed being quite large also. The localities worked were Central, Bronx, and Van Cortlandt Parks, and St. Paul's church-yard in the old city, and Coney Island, Rugby, and Rockaway Beach in that portion of Long Island which is now part of the greater city.

Central Park, in the heart of Manhattan Island, is a good place in migrations, especially for Warblers. At the height of the migrations more than half the birds seen are Warblers. Excepting Robins comparatively few birds breed there, seventeen being the average number of species.

Bronx Park in the northern part of the city has been left mostly in the natural condition, and is the home of about sixty species. The Lawrence Warbler, which nested there the past year, drew more attention to that locality than had been given before. This is a good place in which to study Hawks, as they are not molested. As the larger part of the park is in charge of the New York Zoological Society, every protection and encouragement is given to the birds.

Although Coney Island is mostly taken as a pleasure resort, the extensive marshes back of the beaches are the homes of a number of marsh birds. Seaside and Sharp-tailed Sparrows are abundant summer residents there. During migrations shore and sea birds frequently are seen.

Rockaway Beach is a narrow strip of land separating Jamaica Bay from the ocean. On the "bay" side there are extensive marshes and mud flats. Myrtle bushes are plentiful and there is a small cedar-forest.

Rugby is open country, mostly stubble fields, and very few trees. Adjoining Rugby are the New Utrecht meadows, which are very extensive, and through which several creeks flow. This is an admirable locality for Snipe, Herons, and Rails. There is no protection given to birds there, and everything is shot at, especially by boys with "bean-shooters."

During migration I was in Central Park practically every morning and afternoon for at least half an hour. On the Saturday afternoons the other places were visited. Rockaway Beach excepted. The entire day is needed for that trip, and I was able to get there only twice, onMay 22 and November 20. More trips there would have greatly increased the number of species seen. The first trip to Rugby was on July 22. In September and October several trips were made there. On these trips I was accompanied by one or two friends.

The localities being briefly described, notes on the birds are given in the following list. All of the 160 species were seen in the limits mentioned above and during the past year. Where no localities are mentioned, it is understood the birds were generally distributed. In migrations they were often seen in trees in the city streets.

1. **Colymbus holbœlli.**—Holbœll Grebe. One seen at Coney Island on October 23.

2. **Colymbus auritus.**—Horned Grebe. Two seen at Rockaway Beach on November 20.

3. **Podilymbus podiceps.**—Pied-billed Grebe. Several seen in Central Park in the fall.

4. **Gavia imber.**—Loon. One seen at Coney Island on November 26.

5. **Stercorarius pomarinus.**—Pomarine Jaeger. Several Jaegers seen at both Rockaway Beach and Coney Island, and while most of them were undoubtedly Pomrine, there may have been some Parasitics also.

6. **Rissa tridactyla.**—Kittiwake Gull. A young bird came to within thirty feet of the board-walk at Manhattan (Coney Island) after a storm, November 26.

7. **Larus marinus.**— Great Black-backed Gull. Two adults were seen the same time as the above.

8. **Larus argentatus.**—Herring Gull. A very abundant winter resident everywhere.

9. **Larus delawarensis.**—Ring-billed Gull. Very common along the coast in October and November.

10. **Sterna hirundo.**—Common Tern. A flock of nine at Rockaway on May 22.

11. **Sula bassana.**—Gannet. An adult at Rockaway on November 20.

12. **Phalacrocorax diplophus.**—Double-crested Cormorant. One at Rockaway on November 20.

13. **Anas obscura.**—Black Duck. A flock of twenty-seven seen in the Hudson River on March 12. Common in Central Park in September.

14. **Clangula clangula americana.**—American Golden-eye. Four males flew over Bronx Park on October 16.

15. **Oidemia americana.**—American Scoter. One at Coney Island on March 5.

16. **Oidemia deglandi.**—White-winged Scoter. Common at Rockaway and Coney Island in November.

17. **Branta canadensis.**—Canada Goose. Several flocks were seen in the fall.

18. **Ardetta exilis.**—Least Bittern. A pair bred on Coney Island.

19. **Ardea herodias.**—Great Blue Heron. Two seen at Rugby on July 22.

20. **Butorides virescens.**—Green Heron. Common at Rugby in the fall and may breed.

21. **Nycticorax nycticorax nævius.**—Black-crowned Night Heron. Very common summer resident at most bodies of water.

22. **Rallus crepitans.**—Clapper Rail. One seen at Rugby on September 17.

23. **Porzana carolina.**—Sora. Several seen at Rugby in September.

24. **Actodromas maculata.**—Pectoral Sandpiper. A flock of seven at Rockaway on May 22, and a flock of six at Rugby on October 8.

25. **Actodromas minutilla.**—Least Sandpiper. Three at Rockaway, May 22.

26. **Totanus melanoleucus.**—Greater Yellow-legs. Two at Rugby, September 17.

27. **Helodromas solitarius.**—Solitary Sandpiper. A common migrant both on the coast and fresh water streams.

28. **Bartramia longicauda.**—Bartramian Sandpiper. Two at Rugby, September 17.

29. **Actitis macularia.**—Spotted Sandpiper. A common migrant wherever there is water.

30. **Ægialitis semipalmata.**—Semipalmated Plover. Very common at Rockaway on May 22. Several flocks were seen, which at one time united, forming one flock of at least 2000 birds.

31. **Ægialitis meloda.**—Piping Plover. One at Rockaway, May 22.

32. **Circus hudsonius.**—Marsh Hawk. Common at Rugby in the late summer and fall.

33. **Accipiter velox.**—Sharp-shinned Hawk. Common migrant in Central Park.

34. **Accipiter cooperii.**—Cooper Hawk. Central Park, one on October 3 and one on November 7.

35. **Buteo borealis.**—Red-tailed Hawk. A few were seen at Coney Island in November.

36. **Buteo lineatus.**—Red-shouldered Hawk. Common permanent resident in Bronx Park. One in Central Park, December 25.

37. **Buteo platypterus.**—Broad-winged Hawk. Two in Bronx Park, October 29. One in Central Park, October 30, and one on November 6.

38. **Falco peregrinus anatum.**—Duck Hawk. A fine adult male at Rugby, September 17.

39. **Falco columbarius.**—Pigeon Hawk. One at Rockaway, November 20.

40. **Falco sparverius.**—American Sparrow Hawk. Common at Rugby in September and October.

41. **Pandion haliaëtus carolinensis.**—American Osprey. One in Central Park, April 9.

42. **Asio accipitrinus.**—Short-eared Owl. Several seen along the coast in October and November.

43. **Coccyzus americanus.**—Yellow-billed Cuckoo. Common summer resident in the parks.

44. **Coccyzus erythrophthalmus.**—Black-billed Cuckoo. Uncommon summer resident in the parks.

45. **Ceryle alcyon.**—Belted Kingfisher. Common summer resident in Bronx Park. A few in Central Park in migrations.

46. **Dryobates villosus.**—Hairy Woodpecker. A pair spent the winter of 1903–4 in Central Park. A male is present this winter.

47. **Dryobates pubescens medianus.**—Downy Woodpecker. Common winter resident.

48. **Sphyrapicus varius.**—Yellow-bellied Sapsucker. Common migrant.

49. **Melanerpes erythrocephalus.**—Red-headed Woodpecker. Two in Central Park on September 18.

50. **Colaptes auratus luteus.**—Northern Flicker. Common summer resident. Was abundant in Central Park in fall.

51. **Chordeiles virginianus.**—Nighthawk. Common summer resident. Often seen flying over the house-tops at dusk.

52. **Chætura pelagica.**—Chimney Swift. Abundant summer resident.

53. **Trochilus colubris.**—Ruby-throated Hummingbird. Summer resident in Bronx and Van Cortlandt Parks. A migrant only elsewhere.

54. **Tyrannus tyrannus.**—Kingbird. Common summer resident.

55. **Myiarchus crinitus.**—Crested Flycatcher. Common summer resident in Bronx Park. Common migrant in Central Park.

56. **Sayornis phœbe.**—Phœbe. Common summer resident in Bronx Park. Common migrant elsewhere.

57. **Nuttalornis borealis.**—Olive-sided Flycatcher. One in Central Park on May 28, and one September 30.

58. **Empidonax flaviventris.**—Yellow-bellied Flycatcher. One in Central Park on September 8.

59. **Empidonax minimus.**—Least Flycatcher. Common migrant.

60. **Alauda arvensis.**—Skylark. There is a colony of 75–100 at Rugby. They may be seen any day in the summer, but after the song season are hard to find. They may spend the winter in another neighborhood.

61. **Otocoris alpestris.**—Horned Lark. Very common at Rockaway on November 20.

62. **Cyanocitta cristata.**—Blue Jay. Common permanent resident in Bronx Park. In Central Park, only one was seen in the spring, but it was common in October.

63. **Corvus brachyrhynchos.**—American Crow. Very common permanent resident.

64. **Corvus ossifragus.**—Fish Crow. Summer resident in Bronx Park.

65. **Sturnus vulgaris.**—Starling. Abundant permanent resident, chiefly around tall buildings.

66. **Dolichonyx oryzivorus.**—Bobolink. Common fall migrant at Rugby.

67. **Molothrus ater.**—Cowbird. Common summer resident in Bronx Park.

68. **Agelaius phœniceus.**—Red-winged Blackbird. Common summer resident in the marshes.

69. **Sturnella magna.**—Meadowlark. Common summer resident in Bronx and Van Cortlandt Parks. Permanent resident along the coast.

70. **Icterus spurius.**—Orchard Oriole. Several in Central Park in May.

71. **Icterus galbula.**—Baltimore Oriole. Common summer resident in the parks.

72. **Euphagus carolinus.**—Rusty Blackbird. Common migrant.

73. **Quiscalus quiscula.**—Purple Grackle. Abundant migrant. Local summer resident in Bronx and Central Parks.

74. **Quiscalus quiscula æneus.**—Bronzed Grackle. A fine typical male was seen in Central Park, March 13.

75. **Passer domesticus.**—English Sparrow. Abundant everywhere.

76. **Fringilla cœlebs.**—Chaffinch. There is a male in Central Park which has been there three years.

77. **Carpodacus purpureus.**—Purple Finch. Common fall migrant. in Bronx and Central Parks.

78. **Astragalinus tristis.**—American Goldfinch. Common migrant.

79. **Carduelis carduelis.**—European Goldfinch. A few were seen in Central Park in late winter and Spring. This species appears to be diminishing in numbers.

80. **Spinus pinus.**—Pine Siskin. A flock of 15 in Central Park on October 30. Three at Manhattan Beach, November 19.

81. **Pooecetes gramineus.**—Vesper Sparrow. Abundant summer resident at Rugby.

82. **Passerculus princeps.**—Ipswich Sparrow. One at Manhattan Beach, November 19.

83. **Passerculus sandwichensis savanna.**—Savanna Sparrow. Very abundant fall migrant at Rugby. Rather uncommon at other places.

84. **Coturniculus savannarum passerinus.**—Grasshopper Sparrow. Common summer resident at Rugby.

85. **Ammodramus caudacutus.**—Sharp-tailed Sparrow. Common summer resident at Rubgy and Coney Island.

86. **Zonotrichia leucophrys.**—White-crowned Sparrow. Several were seen in October in various places.

87. **Zonotrichia albicollis.**—White-throated Sparrow. Common winter resident.

88. **Spizella monticola.**—Tree Sparrow. Local winter resident. Very rare in Central Park.

89. **Spizella socialis.**—Chipping Sparrow. Common summer resident.

90. **Spizella pusilla.**—Field Sparrow. Common summer resident in Bronx and Van Cortlandt Parks.

91. **Junco hyemalis.**—Junco. Common winter resident. Most common in fall.

92. **Melospiza cinerea melodia.**—Song Sparrow. Common permanent resident.

93. **Melospiza lincolnii.**—Lincoln Sparrow. One was seen in Central Park, May 6.

94. **Melospiza georgiana.**—Swamp Sparrow.. Common summer resident in the marshes.

95. **Passerella iliaca.**—Fox Sparrow. Common migrant. A few present in Central Park this winter.

96. **Pipilo erythrophthalmus.**—Towhee. Common migrant. A few summer residents at Bronx Park.

97. **Cardinalis cardinalis.**—Cardinal. There are several pairs present all the year in Central Park.

98. **Zamelodia ludoviciana.**—Rose-breasted Grosbeak. A few in Central Park in May.

99. **Cyanospiza cyanea.**—Indigo Bunting. Summer resident in Bronx Park.

100. **Piranga erythromelas.**—Scarlet Tanager. Common spring migrant in Central Park. Summer resident in Bronx Park.

101. **Hirundo erythrogaster.**—Barn Swallow. Summer resident in the northern part of city; elsewhere a common migrant.

102. **Iridoprocne bicolor.**—Tree Swallow. Common spring and abundant fall migrant. Every evening from early in August until late in October this species could be seen overhead in countless numbers.

103. **Riparia riparia.**—Bank Swallow. Common summer resident at Van Cortlandt Park. Elsewhere a migrant. Abundant along the coast in fall.

104. **Stelgidopteryx serripennis.**—Rough-winged Swallow. One pair bred in Bronx Park. Very likely nesting in the masonry of a new bridge.

105. **Ampelis cedrorum.**—Cedar Waxwing. Common summer resident in Bronx Park. In Central Park only one flock was seen in May, but it was very common in the fall.

106. **Lanius borealis.**—Northern Shrike. An immature bird in Central Park, November 2.

107. **Lanius ludovicianus migrans.**—Migrant Shrike. An individual was present at Rugby from about September 3 until October 22, if not later.

108. **Vireo olivaceus.**—Red-eyed Vireo. Abundant summer resident.

108. **Vireo gilvus.**—Warbling Vireo. A few were seen in Central Park in migrations.

110. **Vireo flavifrons.**—Yellow-throated Vireo. Uncommon summer resident in Central Park.

111. **Vireo solitarius.**—Blue-headed Vireo. Tolerably common migrant.

112. **Vireo noveboracensis.**—White-eyed Vireo. A pair bred in Bronx Park.

113. **Mniotilta varia.**—Black and White Warbler. Common migrant. Summer resident in Bronx Park.

114. **Helmitheros vermivorus.**—Worm-eating Warbler. One in Central Park, August 15.

115. **Helminthophila pinus.**—Blue-winged Warbler. Common summer resident in the northern part of city.

116. **Helminthophila lawrencii.**—Lawrence Warbler. A male mated with female Blue-winged Warbler in Bronx Park. It was described in various journals.

117. **Helminthophila chrysoptera.**—Golden-winged Warbler. A female in Central Park, May 7, and a male, August 15.

118. **Helminthophila rubricapilla.**—Nashville Warbler. One in Central Park, May 11, and one September 22.

119. **Helminthophila peregrina.**—Tennessee Warbler. A young bird in Central Park, September 8, and an adult male in St. Paul's church-yard, September 22.

120. **Compsothlypis americana usneæ.**—Northern Parula Warbler. Common migrant.

121. **Dendroica coronata.**—Myrtle Warbler. Abundant migrant.

122. **Dendroica pensylvanica.**—Chestnut-sided Warbler. Common spring migrant. In the fall a few were seen in Central Park only.

123. **Dendroica castanea.**—Bay-breasted Warbler. Several in Central Park in May.

124. **Dendroica striata.**—Black-poll Warbler. Abundant migrant. In the fall in Central Park, this species outnumbered all others put together. The last were seen October 19.

125. **Dendroica blacburniæ.**—Blackburnian Warbler. Several in Central Park in May.

126. **Dendroica virens.**—Black-throated Green Warbler. Common migrant in Central Park.

127. **Dendroica vigorsii.**—Pine Warbler. Tolerably common migrant in Central Park.

128. **Dendroica palmarum.**—Palm Warbler. A very typical specimen was seen in Central Park September 15.

129. **Dendroica palmarum hypochrisea.**—Yellow Palm Warbler. Common spring migrant. Uncommon fall migrant.

130. **Dendroica discolor.**—Prairie Warbler. Several in Central Park in May.

131. **Seiurus aurocapillus.**—Oven-bird. Summer resident in Bronx Park. A common migrant elsewhere.

132. **Seiurus noveboracensis.**—Water-Thrush. Common migrant.

133. **Seiurus motacilla.**—Louisiana Water-Thrush. Common migrant.

134. **Geothlypis trichas brachidactyla.**—Northern Yellow-throat. Summer resident in Bronx Park. Common migrant.

135. **Icteria virens.**—Yellow-breasted Chat. Summer resident in Bronx Park. One in Central Park, May 5.

136. **Wilsonia mitrata.**—Hooded Warbler. An adult male in Central Park, May 1.

137. **Wilsonia pusilla.**—Wilson Warbler. Common in Central Park in May. One seen October 4.

138. **Wilsonia canadensis.**—Canadian Warbler. Common spring, uncommon fall migrant.

139. **Setophaga ruticilla.**—American Redstart. Common summer resident in the parks.

140. **Anthus pensilvanicus.**—American Pipit. An abundant fall migrant along the coast.

141. **Galeoscoptes carolinensis.**—Catbird. Common summer resident.

142. **Toxostoma rufum.**—Brown Thrasher. Common migrant. Summer resident in Bronx Park.

143. **Thryothorus ludovicianus.**—Carolina Wren. Two in Central Park, September 22.

144. **Troglodytes aëdon.**—House Wren. A few in Central Park in May.

145. **Olbiorchilus hiemalis.**—Winter Wren. Several in Central Park in the fall.

146. **Cistothorus stellaris.**—Short-billed Marsh Wren. One was seen with other migrants at Rugby October 8. It may be a summer resident there.

147. **Telmatodytes palustris.**—Long-billed Marsh Wren. Summer resident in the salt marshes.

148. **Certhia familiaris americana.**—Brown Creeper. Uncommon winter resident.

149. **Sitta carolinensis.**—White-breasted Nuthatch. There were a few in Bronx and Central Parks last winter (1903–4), but there are none this winter.

150. **Sitta canadensis.**—Red-breasted Nuthatch. One spent the winter of 1903–4 in Central Park. In the fall one was seen in Central Park, October 15, and one in Bronx Park, October 16. The year before they were abundant in the fall from August to November.

151. **Parus atricapillus.**—Chickadee. Common winter resident.

152. **Regulus satrapa.**—Golden-crowned Kinglet. Winter resident in Bronx Park. Elsewhere a common migrant.

153. **Regulus calendula.**—Ruby-crowned Kinglet. Very common migrant.

154. **Hylocichla mustelina.**—Wood Thrush. Uncommon summer resident in Bronx and Central Parks.

155. **Hylocichla fuscescens.**—Wilson Thrush. Common migrant. Summer resident in Bronx Park.

156. **Hylocichla aliciæ.**—Gray-cheeked Thrush. Tolerably common migrant in Central Park. In early October a few, apparently Bicknell Thrushes (H. a. bicknelli), were seen in Central Park and St. Paul's Church-yard.

157. **Hylocichla swainsoni.**—Olive-backed Thrush. Abundant migrant.

158. **Hylocichla guttata pallasii.**—Hermit Thrush. Abundant migrant. There is one in Central Park this winter.

159. **Merula migratoria.**—American Robin. Abundant summer resident. A few are present in Central Park this winter.

160. **Sialia sialis.**—Bluebird. Summer resident in Bronx and Van Cortlandt Parks. In Central Park seen only in fall migration when it was quite common.

161. **Ammodramus maritimus.**—Seaside Sparrow. Abundant summer resident at Rugby and Coney Island.

BIRDS VS. STREET CARS.

BY MARION E. SPARKS.

The advance of the interurban electric lines, makes excursions to country places more easy, but are the birds near it undisturbed by the shrill whistle? Of course the birds may become used to it, for they pay little attention to railroad trains; but the frequency of the cars may make a difference.

The following notes give the birds seen without careful search, in a space of two lots; along the south edge is a cutting and beyond that a garden equal to a city block in size. During the time the notes were taken, interurban, local and construction cars passed to and fro in the cutting from 4 a. m. till 12 p. m. daily, at intervals of from thirty to three minutes.

The birds were only passing and the ones that remained all summer were noticeably more numerous than they had been in previous years.

Lack of close watching, no doubt missed many. Absence of cats, dogs, chickens, and children may account for the number in part, while the presence of a small stream in the space beyond the garden probably had some influence.

The yard is almost crowded with shrubs, while a dozen shade trees, and twice as many fruit trees helped to make it easy for the birds to escape too close notice.

Time, April 5–May 13, 1904.

April 5, 1904.—Ruby-crowned Kinglet, on a vine at the open window, later in a bush; fearless, almost tame, i.e. allowed observer to approach nearer than ten feet.

April 6-13.— A few, 3 or 4 Chickadees, one White-breasted Nuthatch, Hairy Woodpecker, Flicker, Robin, Wood Thrush, Bluebird, White-throated Sparrow, Veery, Towhee (male only), Brown Thrasher, Brown Creeper, Junco, Bronzed Grackle, Blue Jay.

Cooler April 14–17.

April 17.—The first House Wren of the season; two weeks later than last year.

April 25.—Black and White Warbler seen; only one specimen. The Blackbirds have not been seen since April 20. No

Towhees here since the 22d of April. Robins are plenty now, and two pairs of Brown Thrashers are nest-building.

The Wood Thrushes are fewer in number; the flocks of White-throated Sparrows are gone, too. The Veery (?) and Song Sparrow are often heard.

Cold and rainy, but the Cardinal came to-day, and the first Oven-bird. Male Cardinal was very busy in a brush-heap, feeding the female, who disdained even looking for food for herself. The Cardinals do not notice the interurban car, even when it whistles not twenty feet from them.

April 27.—The earliest Catbird came; the Bluebirds are here again, tame as ever. They were very curious about a bonfire, hardly waiting for the flames to die down before investigating it. The Indigo Bunting was here, taking a drink from a pan of water about thirty feet from the kitchen door.

The Black and White Warbler came again; he "fished up" an angleworm somewhere and was seen pounding it vigorously on a small branch, before he finally ate it. Did he pull it out of the ground as Robins do?

April 30.—Male and female Rusty Blackbird appeared; later they made a nest in a pear tree about ten feet from the house.

May 2.—Hummingbird in the tulip bed.

May 5.—Oven-birds still here, but the flock, or number, is smaller. The Ruby-crowned Kinglet is here yet; flocks of White-throated Sparrows are here morning and evening. A Sora (Carolina Rail), was in the yard this morning. It seemed confused, and attempts to get a closer view resulted in driving it away. Wilson Warbler here to-day.

May 6, 6:00 p. m.—Saw and heard the Rose-breasted Grosbeak.

May 8.—The Least Flycatcher was observed in an apple-tree; shy, and very busy. The Wrens are nest-making. A female Towhee was here; the others earlier, March 9–April 22, were all males, and have been gone more than ten days; they were fearless, but this one is very shy.

The Wood Thrushes are gone, so are the White-throated Sparrows. A Warbler, the Cerulean, almost surely, was here to-day; shy.

May 9.—The Chestnut-sided Warbler; not shy; not ten feet away from the observer and the open house door.

May 11.—Canadian Warbler flashed into sight in the lower boughs of a soft maple, for a few minutes, just long enough to make sure of his identity.

May 13.—The Chimney Swifts are here; and another different warbler, Magnolia? Probably not.

May 18.—Male and female Redstart in the peach tree, "for this day only."

The Baltimore Oriole heard once or twice; was not seen till June; so that he can hardly be counted.

The first Towhees came March 9; Blue Jays are here all winter; Robins too, but not in large numbers. About March 20, the Golden-crowned Kinglet was seen, and a flock of Lark Sparrows, Downy Woodpecker, and Sapsucker. The Robins are on record in my notes as carrying nest material, March 31.

Of those in the first list the following had nests in the yard, or the garden beyond it:

Robin.
Blue Jay.
Flicker.
Brown Thrasher.
House Wren.
Oven-bird.
Catbird.
Bronzed Grackle.
Hummingbird.
Rose-breasted Grosbeak (apparently).
Baltimore Oriole.
Chimney Swift.

The last in a chimney of the house, where they had nested for more than ten years.

As for the numbers of the various sorts the largest numbers seen at any one time were:

Robin, 10 or 12.
Blue Jay, 10 or 12.
Brown Creeper, 2 or 3.
Wilson Thrush, 5 or 6.
Downy Woodpecker, 2.
Towhee (male), 30.
Towhee (female), 1.
Flicker, 4.
Lark Sparrow, 15.
Golden-crowned Kinglet, 1.
Bronzed Grackle, 7 or 10.
Wood Thrush, 10 or 12.
Hairy Woodpecker, 2.
Bluebird, 4.
Yellow-bellied Sapsucker, 1.
Ruby-crowned Kinglet, 2.
Chickadee, 4 or 5.
Brown Thrasher, 4.
House Wren, 4.
White-throated Sparrow, 20.
Black and White Warbler, 1.
Cardinal, 4.
Oven-bird, 10 to 16.
Catbird, 6.
Indigo Bunting, 1.
Rusty Blackbird, 2.

Sora, 1.
Ruby-throated Hummingbird, 1.
Rose-breasted Grosbeak (all males), 6.
Baltimore Oriole, 1.
Chimney Swift, 4.
American Redstart, 2.
Least Flycatcher, 1.
Wilson Warbler, 1.
Chestnut-sided Warbler, 1.
Canadian Warbler, 1.
Cerulean Warbler, 1.
Magnolia, 1.

Total, at least 160, probably 175 individuals.

For the same period of time, and place, the previous year, 1903, when no cars ran up the cutting at all, the birds noticed were:

Blue Jay.
Robin.
Bronzed Grackle.
Brown Thrasher.
Wood Thrush.
Golden-crowned Kinglet.
Cardinal.
Rose-breasted Grosbeak.
Towhee.
House Wren.
Chipping Sparrow.
Baltimore Oriole.
Junco.
Lark Sparrow.
Wilson Thrush (?).
Chimney Swift.

A total of 16, as compared with 37 in 1904.

As a check on this, the birds seen in a piece of woodland a mile away from the car track, July 13, 5 to 10 a. m., may be of interest.

Indigo Bunting, 1.
Field Sparrow, 3.
Barn Swallow, 10.
Phœbe, 4.
Song Sparrow, 2.
Migrant Shrike, 1.
Bluebirds (some young ones), 12.
Yellow-billed Cuckoo, 1.
Chipping Sparrow, 4.
Meadowlark, 3.
American Goldfinch, 5.
Kingbird, 10.
American Crow, 7.
Blue Jay, 7.
Robin, 10.
Bronzed Grackle, 20.

Total, 100.

Urbana, Ill.

AUTUMN BIRDS OF THE LES CHENEAUX ISLANDS.

BY WALTER C. WOOD.

To the bird observer there is a deep interest and pleasant anticipation in exploring a new section of country, especially where a picturesque wilderness lends an added charm. The exquisite beauty of the wild rice marshes, the deep solitude of the thick cedar woods, the rugged magnificence of the windfall tangles and the clear waters reflecting sky and bordering forest form a picture of wild natural beauty never to be forgotten, and such a country is the Les Cheneaux Islands and adjacent mainland in T. 42. N. R. I. W., Macinac county, Michigan.

There is but little cultivated land in the vicinity of these islands. Some tamarack, balsam, pine, and birch trees are to be found, but spruce, hemlock and poplar are more common, while the cedar is the predominating tree and forms extensive swamps.

It is to be regretted that I could not devote my entire time to bird observation, but every opportunity was embraced, and probably very few species escaped notice. Of those observed, however, eight species could not be identified with certainty and are consequently not listed. It might also be mentioned that while no owls were met with one specimen of the Great Horned was shot a few days before my arrival.

Captain John Pollock of the Les Cheneaux Club stated that during his fifteen years residence in the vicinity of these islands he has never observed the Woodcock or Scarlet Tanager, birds he was familiar with in southern Michigan; also a small flock of Passenger Pigeons are observed each year. Of course, as none of these pigeons have been secured their identity is not beyond question. He showed me a nest of the Osprey, from which a gentleman from Chicago took three young and secured the parent birds; and also mentioned one of the Northern Ravens in a pine which had been occupied for many years up to 1900.

The following list represent the birds observed between October 15th and November 15th, 1903:

1. **Colymbus auritus.** Horned Grebe.

2. **Podilymbus podiceps.** Pied-billed Grebe.—These two species could be seen on the bays at all times, the former considered good eating by the residents.

3. **Gavia imber.** Loon.—Several observed.

4. **Larus argentatus.** Herring Gull.—Many seen. Captain Pollock showed me a nest on a small island within 300 yards of the club house, where a brood had been successfully reared during the summer. The pair have nested there five or six years, but no others breed in the vicinity, although the birds may be seen all summer in more or less numbers.

5. **Larus delawarensis.** Ring-billed Gull.—Six were observed one morning on piles in front of club house.

6. **Larus philadelphia.** Bonaparte Gull.—One seen with the last species.

7. **Merganser americanus.** American Merganser.—Common, breeds. Captain Pollock stated that many pairs with young were on the bay during the summer and became very tame, one brood coming to the landing to be fed.

8. **Merganser serrator.** Red-breasted Merganser.—A male dropped into my decoys, but dove at the flash and reappeared out of range. This was the only specimen I could positively identify.

9. **Lophodytes cucullatus.** Hooded Merganser.—Rather common and considered good eating. Pollock says, "a common breeder."

10. **Anas boschas.** Mallard.

11. **Anas obscura.** Black Duck.

12. **Aythya americana.** Redhead.—The various indentations of the bay were covered with wild rice and visited by flocks of the three above species ranging from ten to fifty birds.

13. **Aythya affinis.** Lesser Scaup Duck.—Common.

14. **Clangula clangula americana.** American Golden-eye.—A few small flocks.

15. **Charitonetta albeola.** Buffle-head.—Most abundant of all the ducks. Flocks of 500 or more often seen.

16. **Oidemia americana.** American Scoter.—One bird secured from a flock of five. No others seen.

17. **Branta canadensis.** Canada Goose.—Several small flocks.

18. **Totanus melanoleucus.** Greater Yellow-legs.

19. **Charadrius dominicus.** American Golden Plover.—Flocks of five to twenty of this plover and yellow-legs seen daily and many secured.

20. **Bonasa umbellus.** Ruffed Grouse.—An abundant resident. Its greatest enemies are the foxes and half-starved Indian dogs.

21. **Buteo borealis.** Red-tailed Hawk.—One seen.

22. **Buteo lineatus.** Red-shouldered Hawk.—One seen.

23. **Haliæetus leucocephalus.** Bald Eagle.—One, adult specimen, came daily to the outer bay.

24. **Falco sparverius.** American Sparrow Hawk.—Several seen.

25. **Dryobates villosus.**. Hairy Woodpecker.—Common.

26. **Dryobates pubescens medianus.** Downy Woodpecker.—Common. Most abundant of the woodpeckers.

27. **Picoides arcticus.** Arctic Three-toed Woodpecker.—Most abundant of the woodpeckers.

28. **Ceophlœus pileatus abieticola.** Northern Pileated Woodpecker.—Common. About 30 seen and one secured.

29. **Colaptes auratus luteus.** Northern Flicker.—Several observed.

30. **Cyanocitta cristata.** Blue Jay.—Common.

31. **Perisoreus canadensis.** Canada Jay.—A rather common and conspicuous species found mainly along the Indian trails and deer runs.

32. **Corvus brachyrhynchos.** American Crow.—Several seen.

33. **Pinicola enucleator leucura.** Northern Pine Grosbeak.—Many large flocks noted and a very small percentage in the red plumage.

34. **Loxia curvirostra minor.** American Crossbill.—Many small flocks observed.

35. **Acanthis linaria.** Red-poll. One small flock.

36. **Spinus pinus.** Pine Siskin.—Very abundant.

37. **Passerina nivalis.** Snowflake.—Common. Always in large flocks.

38. **Spizella monticola.** Tree Sparrow.—Common.

39. **Junco hyemalis.** Slate-colored Junco.—Common.

40. **Melospiza cinerea melodia.** Song Sparrow.—Three seen.

41. **Lanius borealis.** Northern Shrike.—The only specimen seen was secured.

42. **Lanius ludovicianus migrans.** Migrant Shrike. Several observed.

43. **Sitta carolinensis.** White-breasted Nuthatch.—Common.

44. **Sitta canadensis.** Red-breasted Nuthatch.—Not so abundant as the preceding.

45. **Parus atricapillus.** Chickadee.—This energetic little bird was distributed throughout the country visited.

46. **Regulus calendula.** Ruby-crowned Kinglet.—One brought me for identification.

46. **Merula migratoria.** American Robin.—Several individuals were noted at various times.

48. **Sialia sialia.** Bluebird.—Several small flocks seen. None observed after November 1st.

Detroit, Mich.

THE SPOTTED SANDPIPER.

CHRESWELL J. HUNT.

Surely every bird student knows the Spotted Sandpiper (*Actitis macularia*). No matter how small the body of water we visit, whether river, creek, or mill-pond, we are almost certain to find at least one pair of these little fellows at home. Visit a rapid stream dashing over rocks and gliding here and there into deep pools such as the trout love and you will hear the shrill "Peet-weet, peet-weet" of the Sandpiper as he takes wing from some point along the water's edge at your approach; or you may come upon him "teetering" upon some rock. Or visit a tide creek or river and you will find him just as much at home upon the sandy beach or upon the mud flats left by the receding tide. He also finds the quiet mill-pond much to his liking and the stream must be small indeed which may not be honored by his presence.

Although so well known generally a few observations made during the past year or two may not be amiss.

Common enough along the streams I frequent, and though one of the first birds whose acquaintance I made when I began the study of ornithology, it is still more or less of a stranger to me. We are on speaking terms and that is all. Never as yet have I been fortunate enough to discover the nest or even to receive a hint from the birds as to the nest location.

It was a hot June afternoon. I had been lying upon a log at the edge of a mill-pond watching a Kingfisher. The mid-day hush in the bird chorus was in progress and 'ere long I fell asleep. When I awakened, without moving I looked out over the water and there within only a few yards of me stood two Spotted Sandpipers. They were standing in about three inches of water and were apparently fast asleep. Each stood upon one leg. The head was turned back and the bill was hidden in the feathers of the back. They were perfectly motionless. I wondered if it was customary for these birds to sleep in this manner. Do they always sleep thus? Or were these birds simply taking a siesta?

Mr. C. J. Peck and myself spent most of the nights of May 28 and 29, 1904, in an open boat upon a New Jersey tide creek. During the early night and even at midnight we heard a strange whistle which some bird made as it flew across the marsh. It was of course too dark to see the bird, but on the following evening we heard a Spotted Sandpiper give the same note. Is this nocturnal flight common with this species? Has it anything to do with the breeding season? Is this bird astir all night? I have found them sleeping during the day and flying about at night. If they sleep at night do they sleep standing in the water or where do they roost? Can not some other bird student throw some more light upon this subject?

We always associate the Spotted Sandpiper with the vicinity of water. Whenever I think of them I imagine I can hear water rushing about rocks or see before me an expanse of mud flats. What was my surprise, therefore, when one July morning I found one of them walking the railroad tracks. To be sure it was near a trestle that spanned the creek, but here was the bird walking back and forth upon the steel rail, occasionally stopping and "teetering" in its customary way. It was a young bird of the year, lacking the conspicuous spots upon the breast. As it walked the rail the toes were turned in and it was "pigeon-toed" to perfection. I soon found, however, that there was an object in its madness as I saw it several times drop down to one of the ties and capture an unsuspecting spider, which it devoured with apparent relish.

Philadelphia, Pa., May, 1905.

BIRD HORIZONS FROM RUSSELLVILLE, KY.

BY G. C. EMBODY.

March 19, 1904.

Time, 2:30–5:30 P. M.; temp., 70°; clear; light south wind.

Wilson Snipe, 3; Bob-white, 15; Turkey Vulture, 10; Red-bellied Woodpecker, 2; Flicker, 10; Bronzed Grackle, 50; Vesper Sparrow, 20; Savanna Sparrow, 5; Leconte Sparrow, 1; White-crowned Sparrow, 2; White-throated Sparrow, 10; Field Sparrow, 8; Slate-colored Junco, 50; Song Sparrow, 12; Swamp Sparrow, 1; Cardinal,

10; Myrtle Warbler, 6; Tufted Titmouse, 5; Carolina Chickadee, 10; Golden-crowned Kinglet, 4.

Total: Species, 20; individuals, 234.

April 27, 1904.

Time, 2–6 P. M.; temp., 75°; cloudy.

Bob-white, 1; Turkey Vulture, 6; Downy Woodpecker, 1; Pileated Woodpecker, 1; Chimney Swift (estimate), 100; Crested Flycatcher, 5; Wood Pewee, 2; Phœbe, 1; Blue Jay, 5; Crow, 10; Purple Finch (est.), 100; Goldfinch, 10; White-throated Sparrow, 5; Chipping Sparrow, 10; Field Sparrow, 30; Towhee, 2; Cardinal, 5; Scarlet Tanager, 4; Summer Tanager, 5; Cliff Swallow, 1; Red-eyed Vireo, 3; Warbling Vireo, 1; White-eyed Vireo, 6; Black and White Warbler, 3; Worm-eating Warbler, 1; Cape May Warbler, 1; Prairie Warbler, 3; Myrtle Warbler, 10; Oven-bird, 3; Black-poll Warbler, 2; Mockingbird, 5; Catbird, 6; Brown Thrasher, 3; Carolina Wren, 1; Tufted Titmouse, 5; Carolina Chickadee, 3; Blue-gray Gnatcatcher, 10; Wilson Thrush, 1; Robin, 10; Blue-bird, 4.

Total: Species, 40; individuals, 385.

April 30, 1904.

Time, 10 A. M.–5 P. M.; temp., 80; clear; light east wind.

Bob-white, 1; Mourning Dove, 4; Turkey Vulture, 10; Broad-winged Hawk, 1; Downy Woodpecker, 1; Flicker, 4; Chimney Swift, 40; Hummingbird, 1; Kingbird, 6; Crested Flycatcher, 10; Blue Jay, 15; Crow, 10; Meadowlark, 2; Bronzed Grackle, 5; Orchard Oriole, 1; Baltimore Oriole, 3; Purple Finch, 40; Goldfinch, 10; White-throated Sparrow, 10; Chipping Sparrow, 10; Field Sparrow, 20; Savanna Sparrow, 2; Swamp Sparrow, 1; Lincoln Sparrow, 2; Bachman Sparrow, 1; Rose-breasted Grosbeak, 4; Indigo Bunting, 5; Cardinal, 8; Towhee, 20; Summer Tanager, 3; Scarlet Tanager, 2; Bank Swallow, 2; Rough-winged Swallow, 1; Red-eyed Vireo, 10; White-eyed Vireo, 10; Yellow-throated Vireo, 5; Black and White Warbler, 6; Prairie Warbler, 6; Myrtle Warbler, 2; Black-throated Green Warbler, 3; Cerulean Warbler, 2; Black-poll Warbler, 6; Yellow Palm Warbler, 1; Maryland Yellow-throat, 10; Yellow-breasted Chat, 15; Redstart, 2; Ovenbird, 6; Mockingbird, 5; Catbird, 20; Brown Thrasher, 15; Carolina Wren, 6; Red-breasted Nuthatch, 1; Tufted Titmouse, 10; Carolina Chickadee, 8; Ruby-crowned Kinglet, 6; Blue-gray Gnatcatcher, 20; Robin, 18; Blue-bird, 12.

Total: Species, 58; individuals, 459.

May 14, 1904.

Time, 9 A. M.–5 P. M.; temp., 75°; cloudy; light south wind.

Bob-white, 20; Mourning Dove, 5; Turkey Vulture, 10; Yellow-billed Cuckoo, 3; Downy Woodpecker, 1; Pileated Woodpecker, 1; Red-headed Woodpecker, 3; Kingbird, 20; Wood Pewee, 2; Prairie

Horned Lark, 2; Crow, 30; Meadowlark, 10; Bronzed Grackle, 30; Orchard Oriole, 10; Baltimore Oriole, 5; White-throated Sparrow, 1; White-crowned Sparrow, 1; Chipping Sparrow, 7; Field Sparrow, 12; Grasshopper Sparrow, 25; Lincoln's Sparrow, 1; Indigo Bunting, 10; Dickcissel, 3; Cardinal, 8; Red-eyed Vireo, 10; White-eyed Vireo, 10; Yellow-throated Vireo, 1; Warbling Vireo, 1; Black and White Warbler, 4; Prairie Warbler, 2; Magnolia Warbler, 1; Yellow Warbler, 2; Black-poll Warbler, 2; Oven-bird, 8; Yellow-breasted Chat, 15; Mockingbird, 6; Catbird, 20; Brown Thrasher, 5; Carolina Wren, 6; Bewick Wren, 2; Tufted Titmouse, 5; Carolina Chickadee, 4; Wilson Thrush, 2; Wood Thrush, 2; Robin, 28; Bluebird, 15.

Total: Species, 46; individuals, 371.

August 25, 1904.

Time, 2–5 P. M.; temp., 95°; clear.

Solitary Sandpiper, 1; Mourning Dove, 15; Turkey Vulture, 3; Red-headed Woodpecker, 5; Kingbird, 10; Crested Flycatcher, 2; Wood Pewee, 1; Crow, 5; Field Sparrow, 8; Grasshopper Sparrow, 3; Bachman Sparrow, 10; Cardinal, 3; Red-eyed Vireo, 1; Yellow-throated Vireo, 1; Berwick Wren, 1; Tufted Titmouse, 5; Carolina Chickadee, 4; Bluebird, 20.

Total: Species, 20; individuals, 101.

September 17, 1904.

Time, 10 A. M.–5 P. M., temp., 90°; clear.

Solitary Sandpiper, 1; Bob-white, 1; Mourning Dove, 8; Turkey Vulture, 20; Black-billed Cuckoo, 1; Downy Woodpecker, 1; Red-headed Woodpecker, 5; Red-bellied Woodpecker, 5; Pileated Woodpecker, ; Flicker, 6; Nighthawk, 12; Chimney Swift, 20; Phœbe, 1; Acadian Flycatcher, 1; Wood Pewee, 5; Yellow-bellied Flycatcher, 2; Crow, 5; Blue Jay, 5; Goldfinch, 1; Field Sparrow, 8; Grasshopper Sparrow, 4; Summer Tanager, 2; Cardinal, 20; Red-eyed Vireo, 2; White-eyed Vireo, 2; Ovenbird, 1; Chestnut-sided Warbler, 1; Black-throated Green Warbler, 5; Magnolia Warbler, 1; Mockingbird, 6; Bewick Wren, 2; Tufted Titmouse, 10; Carolina Chickadee, 6; Robin, 10; Bluebird, 12.

Total: Species, 35; individuals, 193.

December 28, 1904.

Time, 2–5 P. M.; temp., 20°; north west wind; clear.

Bob-white, 30; Mourning Dove, 5; Turkey Vulture, 3; Downy Woodpecker, 2; Hairy Woodpecker, 1; Flicker, 20; Blue Jay, 3; Crow, 10; Meadowlark, 25; Leconte Sparrow, 1; Tree Sparrow,, 12; Song Sparrow, 3; Junco, 100; Cardinal, 4; Towhee, 1; Cedar Waxwing, 10; Myrtle Warbler, 10; Mockingbird, 5; Brown Creeper, 1; Tufted Titmouse, 10; Carolina Chickadee, 5; Hermit Thrush, 1; Bluebird, 8.

Total: Species, 23; individuals, 270.

January 21, 1905.

Time, 10 A. M.–5 P. M.; temp., 32°–40°; north west wind; clear.

Turkey Vulture, 15; Downey Woodpecker, 3; Yellow-bellied Sapsucker, 1; Flicker, 2; Prairie Horned Lark (est.), 90; Crow, 20; Blue Jay, 1; Meadowlark, 2; Purple Finch, 12; Goldfinch, 4; Tree Sparrow, 6; Field Sparrow, 20; Junco (est.), 100; Song Sparrow, 4; Towhee, 1; Cardinal, 10 Cedar Waxwing, 10; Loggerhead Shrike, 1; Myrtle Warbler, 30; Mockingbird, 4; Carolina Wren, 3; Bewick Wren, 1; Tufted Titmouse, 5; Carolina Chickadee, 20; Golden-crowned Kinglet, 1; Robin (flock), 100; Bluebird, 5.

Total: Species, 27; individuals, 471.

COMMON TERN. (Sterna hirundo.)
Nest with Egg and Two Just Hatched Young, and Two Half Grown Young.
Woepecket Id., Mass.

WINTER NOTES ON YELLOW-BELLIED SAPSUCKER (*Sphyrapicus varius*).

BY C. H. MORRIS.

On January 15, 1905, on one of the coldest days of the winter, Yellow-bellied Sapsucker—a fine male—dropped in near my lunch counter, and from that time until now, February 15, he has been about nearly every day. The first time I saw him he was sticking close to the ground on the southeastern side of a maple catching the first level rays of the sun. With shoulders rounded and feathers ruffled he looked to be as cold as was the weather. On the 23d, the temperature having risen to thawing point, he drilled his row of holes in the maple, where first I saw him, and during the forenoon never once left his post. The sap ran sluggishly and his appearance matched it. I had noticed him flying about a couple of plum trees upon which the dried fruit hung in abundance—Dawson plums they are—and on the 29th, while watching his scarlet-throated lordship, I saw him pluck a plum. He did not insert it in a crack as his family does with nuts, but ate it partially, dropping the stone. His favorite method is taking small bits of the fruit as it hangs. On the 27th, the sap from the holes had frozen into icicles some five inches long, and Yellow-belly sat below, and nipping off the points leisurely, ate the ice. Yesterday, February 14, the coldest day we have had, with the temperature 8°, the bird flew on the lunch-box in which I had just placed cracked hickorynuts and walnuts. Close by him was suet in great plenty, which the Downy and Hairy feed from almost exclusively, seeming to have no taste for the nuts. But Yellow-bellied ate greedily of the nuts, thus following in the footsteps of his brother, Red-bellied Woodpecker, who scarcely ever will touch the meat or suet.

Mr. Dawson, in his charming work, "The Birds of Ohio," gives this latitude as about the northern winter range of this bird. February 11, another one came, this time an immature specimen, but he only remained for two or three days.

The birds are in the habit of frequenting a spruce and pine tree close by, and several times they have been observed eat-

ing the small nodules of the pitch that has, during the preceding year, exuded from the tree.

Morgan Co., O.

NESTING OF THE YELLOW-BELLIED SAPSUCKER.

BY J. CLAIRE WOOD.

I know of but two sets of eggs of this species taken in the county. I was collecting birds in a thick woods on P. C. 49, Ecorse township, on May 10, 1891, when I met with a party of young egg collectors. Soon after I heard one calling that he had found a Downy Woodpecker's nest. On being told the birds were Yellow-bellied Sapsuckers, he was greatly surprised. The cavity contained three fresh eggs, which he left for a larger set, but there is a humorous sequel. It seems that after I left a consultation was held and it was decided to take the eggs for fear I might return and do a little collecting myself. When the collector arrived home his father, a well known oologist, decided to return at once and secure the bird in order to discover, by dissection, the number of eggs that would have been laid. This was done, and when he cut open the bird next day, Great Cæsar! it was the male.

This is the most abundant and noisy woodpecker of the woodlands here during April. Before the expiration of the month the majority are already mated and looking for nesting sites, but after drilling numerous test holes, in one case devoting three days to a single excavation, they apparently feel a renewal of the migratory impulse and fade away toward the north; so when, on April 21, 1903, in Section 3, Van Buren township, I saw a female drilling into a dead stub in the thickest portion of a low swampy woods, I merely watched her awhile and passed on without further consideration. Chancing to pass the stub on May 19 I tapped it and out popped madame's head—the surprise was mutual. As I ascended and paused at her level she remained motionless, in fact, did not move until my finger was extended, when she retreated before it, but paused just out of reach and proceeded to drill a hole into the end. As it was withdrawn she followed closely until

her head protruded as before. This was repeated many times, she never forgetting to pound the end with a good will. A puff of smoke, blown into the cavity, finally induced her to vacate, but so small was the entrance that she actually stuck tight for about ten seconds before she could squeeze through. She eyed me a moment from the nearest tree trunk, then returned and clung to the stub only a few feet above my head. The excavation was twelve feet above the ground and the stub about twenty high. The entrance went straight in for three inches and was eighteen in depth, widening out to six at the bottom and occupying the core of the tree. It contained four fresh eggs, best described as exactly like average bluebird's in size and shape, but, of course, pure white. This was probably an incomplete set, as both Dr. P. E. Moody and myself have taken sets of six eggs in Oakland county, where the birds exhibited none of the courage of this individual.

Wayne County, Mich.

ALL DAY WITH THE BIRDS AT DURMID, VA.

BY W. F. HENNINGER.

This year I had to make my "All Day with the Birds" in a new territory. Having arrived at Lynchburg, April 25th, I immediately went to work to study the bird world. For that reason I preferred staying with friends at Durmid, as the mountains are only two miles distant. In some respects the bird world is similar to that of middle southern Ohio, for the climate is practically the same. Bewick Wren and Bachmann Sparrow greeted me, together with the Prairie Warbler the very first day.

The hills are crowded with woods, both decidious trees and pines; little streams gushing down from the hillsides; stones are abundantly sown over the shining brick-red soil, and bird-life lacks the vigor and freshness of the North.

Hawks seemed scarce and the great numbers of Turkey Vultures could not atone for this. Owls I did not see at all. Woodpeckers were persent, but only in very few individuals. The Robin was quite rare, the Meadowlark was heard but

twice, the Baltimore Oriole I found at Rivermount Park only, while the Grackles were confined almost entirely to Spring Hill cemetery. It took me almost a week to find a good corner for the study of the Warblers, but here they were thick and I have never made a better study of the Blackburnian, Chestnut-sided and Parula Warblers' songs than at this place. In the intervals could be heard the low notes of a pair of Worm-eating Warblers, the lazy weird song of the Prairie Warbler, and above them all the strong chant of the Carolina Wren; while as soon as you stepped a little farther out of the forest, Catbird, Brown Thrasher and Mockingbird were trying to outdo one another.

After having made a careful survey of this territory and also of Rivermount Park, another splendid place for the birds, where they seemed to have lost all shyness, and gaudy Summer and Scarlet Tanagers, Orioles and Wood Thrushes would sit only a few feet away from you. I decided to make May 5th an All Day with the Birds, but I became ill and for three days had a severe fever. As soon as it left me, however, I decided I had to go at once, and May 8th found me at work. My previous careful study enabled me to come out of the woods at 10 a. m. with 79 species seen, then I went to the James River, but work there was a sore disappointment. No doubt our secretary, Mr. John W. Daniel, Jr., whose home is at Lynchburg, could have done far better than I did, as he no doubt would know the haunts of the birds there. Suffice it to say the James River only netted me eight new species in three hours of the hardest kind of work, but it included a species I had not yet seen here—the Warbling Vireo. Rivermount Park furnished the greatest surprise of the day—a pair of Philadelphia Vireos,—a late date for this bird as also for the Hermit Thrush, but in Lynchburg, as everywhere, the past winter had been a severe one and no doubt this kept back many a migrant.

By 5:30 p. m. I began to feel the effects of the three days of fever and was compelled to go home and remain quiet, but still I was able to add a few more, till at 9 p. m. the doleful note of the Whippoorwill gave me my 105th species. Taking into consideration my physical condition and the fact that

I worked in a new territory, may account for the smaller list, but at the same time it also added a new charm to bird study to see what could be done for an "All Day" record under such circumstances.

Lynchburg, Pa., May 8, 1905.—Weather warm, about 85°, sun bright from 6 till 12, then sky overcast with clouds, strong wind in evening. Leaving Durmid 6 a. m., two miles south through woods and hills, half way up the Candler Mountains till 10 a. m. (species seen, 79); from 11 a. m. from Durmid to 12th street depot (N. & W.) Lynchburg, new species seen, 3; car to Union depot, walking on left side of James River east four miles, returning by way of Island till 3 p. m. (new species added, 8); car to Rivermount Park, where I staid till 5:30 p. m. (new species added, 11); returning to Durmid, where I added four species, the last one at 9 p. m. Total species seen, 105; total individuals, 604.

Bewick Wren, 15; Robin, 2; Mockingbird, 5; Chipping Sparrow, 8; Catbird, 20; Brown Thrasher, 7; Meadowlark, 1; Maryland Yellow-throat, 6; Field Sparrow, 10; Yellow Warbler, 10; Yellow-breasted Chat, 6; Tufted Titmouse, 2; Green-crested Flycatcher, 6; Mourning Dove, 2; Goldfinch, 20; Killdeer, 1; Kingbird, 5; Nighthawk, 2; Vesper Sparrow, 2; Bachmann's Sparrow, 12; Towhee, 15; Crested Flycatcher, 6; Black and White Warbler, 6; Redstart, 25; Traill Flycatcher, 2; Carolina Wren, 3; Black-throated Blue Warbler, 4; Prairie Warbler, 15; Tennessee Warbler, 2; Black-throated Green Warbler, 8; Black-poll Warbler, 9; Pine Warbler, 4; Cape May Warbler, 4; Chestnut-sided Warbler, 20; Blue-winged Warbler, 2; Worm-eating Warbler, 2; Bay-breasted Warbler, 2; Parula Warbler, 4; Nashville Warbler, 1; Golden-winged Warbler, 4; Magnolia Warbler, 1; Connecticut Warbler, 2; Myrtle Warbler, 1; Wilson Warbler, 2; Canadian Warbler, 4; Summer Tanager, 4; Red-headed Woodpecker, 4; Grasshopper Sparrow, 2; Carolina Chickadee, 3; Cardinal, 20; Indigo Bunting, 4; Phœbe, 1; Wood Pewee, 12; American Crow, 7; Yellow-throated Vireo, 3; Red-eyed Vireo, 40; Solitary Vireo, 2; White-eyed Vireo, 1; Warbling Vireo, 4; Oven-bird, 12; Blue-gray Gnatcatcher, 8; House Wren, 3; Wood Thrush, 18; Flicker, 3; Louisiana Water Thrush, 2; Wilson Thrush, 2; White-breasted Nuthatch, 2; Turkey Vulture, 50; Bob-white, 2; Chimney Swift, 9; Bluebird, 6; Red-winged Blackbird, 2; Purple Martin, 2; Downy Woodpecker, 1; Loggerhead Shrike, 1; Sharp-shinned Hawk, 1; Orchard Oriole, 3; Sparrow Hawk, 1; Yellow-bellied Flycatcher, 1; Song Sparrow, 6; Bank Swallow, 2; Blue Grosbeak, 4; Least Flycatcher, 2; Rough-winged Swallow, 8; Spot-

ted Sandpiper, 1; Green Heron, 1; Yellow-legs, 1; Kingfisher, 1; Baltimore Oriole, 3; Hairy Woodpecker, 1; White-throated Sparrow, 1; White-crowned Sparrow, 1; Hermit Thrush, 2; Ruby-throated Hummer, 1; Blue Jay, 3; Barn Swallow, 1; Broad-winged Hawk, 1; Cowbird, 4; Purple Grackle, 2; Whippoorwill, 2; Blackburnian Warbler, 11; Cerulean Warbler, 2; Scarlet Tanager, 10.

SOME FURTHER SUGGESTIONS FOR BIRD STUDY.

BY LYNDS JONES.

We may keep plainly in view two main objects of "All Day" studies, such as Christmas, New Year, May, and July. The first object, as it lies in the writer's mind, is to stimulate interest in outdoor studies. The second is to determine, as far as possible, what birds inhabit the given region at the time of the study. The first object is certainly a worthy one, and the second is the beginning of the carefully prepared local list. It is the oft repeated and firm conviction of the writer that a conservative local list, whether it cover but a small area surrounding some village, or more ambitious, covers a whole county, is one of the most valuable helps for the beginner in bird study. It reduces the liability to gross mistakes in the almost universal expectation, shall I say, of the marvelous in bird life. If the local list is prepared by some person who knows what birds should be found in that locality a list of the species which have not been found up to the preparation of the list, but which should be found there may well be appended. Such a list is certain to stimulate interest in the local study. Who shall be first to add one and another of these species to the real list? These points have all along been given more emphasis than any others because it has been assumed that most of the members of The Wilson Ornithological Club have not yet attained to the degree of knowledge where special studies can profitably be undertaken. There are, however, not a few members who are capable and ready to undertake special work, and it is to such persons that I wish to speak further.

There is a great deal of work that needs to be done before we know anywhere near all about the birds, some of it out of reach of the average person who knows birds well, some of it within the reach of every person. Mention has many times

been made of the need for more extensive and more exact knowledge of the breeding habits of the birds. The nest location, nest material (of what sort and where obtained), how the nest is made, by both or only one parent; the possibility that two pairs of birds unite in one nest, particularly among the more gregarious species; the relation of the nest construction to season and weather; the time in building; the real office it performs in the act of breeding for parents, eggs and young.

There is a whole chapter in the "story of the birds" in the eggs. Who will write that chapter? Some of us may be strongly inclined to the oological side of bird study. If so here is a nearly untrodden field. It is for you, if you feel this tendency, to bring forward a new oology.

A little aside from the subject of oology proper is the embryology of nearly all of our native birds. The concern here is rather with the late than with the earlier stages of incubation. At what time do the first suggestions of the future feathers appears as little papillæ on the skin surface? The 5th day of incubation will probably be found the earliest date. How rapidly do these papillæ grow? What is their condition at hatching? When do the true feathers begin to appear beneath the skin and at the lower end of the down? How are these feathers arranged on the body? What is their rate of growth? How does their rate of growth correspond to the growth of the young bird? Why is down first followed by feathers? What is the relation of the color pattern of the nestling or downy young to the nest and other environment? What is the relation of the color pattern of the downy young to the first feather plumage, and of the first feather plumage to succeeding ones? Just here lies the secret to the development of the color patterns because we have given almost no attention to the downy young and to the earliest stages of the first feather plumage. It is a very enticing field for the original worker.

Coming to the adult birds, we don't begin to know yet all about their geographical distribution and migrations. The winter distribution and the spring migrations are comparatively easy and fairly well known, because at these times peo-

ple feel the inspiration to get out for actual field study. We are also coming to know something about the autumn migrations, but even yet far too little in a particular way. The fall migrations are not so easy to study, and the inducements to it are less enticing, and the difficulties greatly increased for most of us. One must become familiar with the least conspicuous plumages to know what birds he finds, and that is certainly not an easy task, but it can be accomplished. The time of year which has been the most neglected is the summer season. There are two main objects for the summer study, each worthy and each equally important. The first and most evident one is to determine exactly the breeding area of that species. The second reason is to determine the time when the southward migration actually begins. We need to know this as accurately as we know the time of the beginning of the northward migration before we can assume that we know much about it. There are a great many questions about the southward migration that need a conclusive answer, but the data must first be gathered.

Let no one suppose that he can do nothing with these suggestions because he cannot attempt something with all of them. One minor point under one of the minor heads is worth earnest effort and will repay anyone who has the courage and enterprise to undertake the study. Let those of us who can undertake some of these more particular studies, while those who cannot, for whatever reason, do what they can in their own localities.

TWO GOOSE RECORDS FROM OHIO.

W. F. HENNINGER.

On the morning of March 24, 1905, one of the proprietors of the Empire Hotel here at Tiffin shot two wild geese on the Sandusky River, one and one-half miles south of the city. Thanks to the persistent efforts and tireless energy of Mr. Karl J. Heilmann, I was able to secure the skins on condition of returning the meat to the hunter, to which I gladly consented. One of them was a fine old male of the Blue Goose (*Chen cærulescens*). Measurements: Extent, 168 ctm.; bill, 6 ctm.;

wing, 48 ctm.; tail, 20 ctm.; tarsus, 8 ctm.; length without bill, 89 ctm. Weight, 11½ lbs.

The books say the bill of this species is entirely purplish red in life, but the bill of this specimen was of a straw yellow, the purplish red being confined to two stripes parallel to the culmen. The other species was a male of the Hutchins Goose (*Branta canadensis hutchinsii*): Measurements: Extent, 153 ctm.; bill, 5 ctm.; tarsus, 7½ ctm.; wing, 43 ctm.; tail, 16½ ctm. (14 tail-feathers); length, without bill, 78 ctm. Weight, 5¾ lbs. Both specimens are now in my collection. The Hutchins Goose is to my knowledge the first Ohio specimen preserved in one of the collections of the state. It is indeed a streak of good luck to secure two such rareties in one day.

ADDITIONS TO THE BIRDS OF OHIO.

LYNDS JONES.

Anhinga anhinga.—Anhinga. Mr. C. H. Morris informs me that a specimen of this southern species was taken in the Muskingum river at Lowell, Ohio, in Morgan county, in November, 1885, by a Mr. Davis. The specimen was mounted by Mr. Davis and is now in his private collection. Mr. Morris photographed the specimen and sent a print to me. At the time of writing this note particulars are wanting, but they will be ascertained and announced later. This species should be added to the list of Accidental Birds of Ohio.

Milvulus forficatus.—Scissor-tailed Flycatcher. Robert McCrory, Esq., reports a specimen of this southwestern species at Marysville, Ohio, the last of May, 1903. A careful description and sketch sent with the announcement seem to leave no doubt of the authenticity of this identification. Pariculars are lacking at this writing, but will be forthcoming for the next issue of the Bulletin. This, if corroborated, is the second occurrence for this bird in Ohio.

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Edited by LYNDS JONES.

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EDITORIAL.

More and more local lists of birds are being called for by teachers and others who are either trying to interest others in bird study, or who are beginning that study themselves. The Wilson Bulletin always welcomes local lists which have the marks of careful preparation. If authors of such lists desire separates of their lists, arrangements for such separates should be arranged for before the type is thrown down.

For a summer "All Day" we suggest Saturday, July 1st. Such a day will be well within the summer season when no southward movement will likely have begun anywhere within the United States, and will avoid the objection which has been felt to the 4th, when some people wish to celebrate in the good old fashion. It will also give a glimpse of the summer population of your region. All such lists which are sent to the editor will be put into tabular arrangement for the September Bulletin.

The half tones which appear in this number are from photographs taken in the vicinity of Woods Hole, Mass.

To the many kindly inquiries regarding the line of the editor's study while he was at the University of Chicago he wishes to say that it was specifically a careful study of the development of the first down and the relation of that down to the first feather, a feather always following a down and pushing the down out upon its tip. Some may be interested to know that the recall from Chicago to take up the work of Professor Albert A. Wright, who died suddenly on April 3, has not made necessary the complete cessation of the University work. The editor has reasonable hope of being able to complete the work begun before the summer.

GENERAL NOTES.

SOME NESTING SITES OF THE HAIRY WOODPECKER (*Dryobates villosus*.—According to my experience the Hairy Woodpecker is not a common breeder in this county, the majority of birds noted during the period of nidification being transitory, as many a time I have followed a bird to the woodland margin and seen it launch forth, bound for some distant piece of timber. The four nesting sites I have noted were in thick woods and discovered when least expected.

Site 1. P. C. 618, Grosse Pointe Twp., June 11, 1899.—Excavation in trunk of very large barkless dead elm about 50 feet above ground and 20 below first limb. My attention was directed to it by watching the birds conveying food. The clamor of the young could be distinctly heard.

Site 2. Section 31, Nankin Twp., May 6, 1900.—Excavation in trunk of dead beech 55 feet up and just under large limb. Contained four slightly incubated eggs. Depth of cavity, eight inches. Was located April 22, by watching the birds.

Site 3. Section 3, Van Buren Twp., May 17, 1903.—Excavation in poplar stub about fifteen feet above ground in thick second growth containing many dead trees and stubs. Young responded in joyous chorus to knock upon stub base.

Site 4. Section 11, Brownstown Twp., May 23, 1903.—Total height of beech about 40 feet and only the upper three feet of it dead. Excavation near center of dead portion. Young noisy and could be heard for a considerable distance whenever parents approached with food. Frequently protruded their heads from cavity and were apparently about ready to leave nest. Parents very solicitous and fearless. J. CLAIRE WOOD.

Wayne Co., Mich.

RUBY-CROWNED KINGLET IN WINTER.—On February 16, on the Ohio State University campus, I observed a Ruby-crowned Kinglet (*Regulus calendula*) in a flock of about one hundred Golden crowned Kinglets (*Regulus satrapa*). While the specimen was not secured I am convinced that the bird was *calendula*. I am fairly familiar with this brid as an April and October migrant; and further, I was able to contrast it directly. ZENO METCALF.

THE DICKCISSEL (*Spiza americana*) IN WAYNE CO., MICH.—The Dickcissel is a rare summer resident in Wayne county. This assertion, as to its rarity, is based upon the fact that while business and pleasure takes me into various sections of the county every summer, I have met with it during two years only, and furthermore, no one else has observed it here so far as I know.

The first bird was singing from the top of an elm sapling on the margin of a dense bush land divided by a swale of marsh grass

and rushes in Private Claim 50, Ecorse Twp. This was in May, 1899, and the bird was seen on several subsequent visits. On July 30th, of the same year, I discovered a colony of about 15 pairs on P. C. 405, Village of Delray, and about a mile from the other locality. They had taken possession of some ten acres of neglected land, covered mostly with thick weeds, but there was a mud flat in one portion fringed with rushes. This field is surrounded by factory buildings, railroad tracks and the River Rouge. I secured a male, but, despite protest, my companion collected four males and two females, saying the birds were rare and we might not get another chance. I found an empty nest, probably of this species, fastened to the weeds about a foot above the ground. While examining it I noticed a motion of the weed tops a few feet away and investigation discovered a young Dickcissel not yet able to fly. No birds have since been seen in the two above localities.

The next bird was perched upon a wire fence between two meadows in Section 19.Monguagon Twp., about the middle of May, 1904, and the last seen was a male and female on July 20th, in the bushes along a fence between a corn and clover field on P. C. 26, Village of Fairview. J. Claire Wood.

Some Spring Records from the Vicinity of New York City.—Central Park, March 5.—150 Snowflakes remained about a week.

March 7.—3 American Crossbills.

March 26.—1 Mourning Dove.

May 8.—13 Bay-breasted Warblers.

May 10.—1 female Blue-gray Gnatcatcher.

Leonia, N. J., March 25.—1 Baldpate.

May 6.—2 Tufted Titmice.

Vicinity of Englewood, N. J., May 13.—1 Brewster's Warbler (*Helminthophila leucobronchialis*) observed in an elm tree by the road eating the fruit. Carleton Schaller.

New York City.

BOOK REVIEWS.

Gleanings No. IV. Some Notes on the Summer Birds of Monongahela Co., W. Va. By J. Warren Jacobs.

We are always pleased to receive these Gleanings from time to time, not alone because they possess intrinsic worth, but because they illustrate in an unmistakable way one persons lively interest in what the birds about him are doing. The observations made on two short trips introduce us to some of the features of a region all too little known. We trust that Mr. Jacobs may yet find time to thoroughly work this territory. L. J.

Bird Study in the Rural School. Normal School Bulletin, No. 12, April 1, 1905. By Thomas L. Hankinson, B.S.

In ten pages Professor Hankinson has discussed in a pleasant manner the possibilties of bird study without either museum or collection or teacher, and has clearly shown that there are no insurmountable difficulties. The writer has a very tender memory of the rural school, for it was there that his early education was wholly obtained. There, too, all of his early experiences in bird study were cast. If he still sighs for the old times and scenes who shall say him nay! We cannot but envy the rural teacher and scholar their unrivalled opportunities for bird study at first hand. L. J.

The Mammal and Bird Fauna of Beaver County, Pennsylvania. By W. E. Clyde Todd. (Reprinted from History of Beaver County, Pennsylvania, at its Centennial Celebration.)

Some pertinent remarks upon the past fauna and the influence of settlement upon that fauna, and remarks relating to the zoogeographic position of Beaver County, are followed by an annotated list of 30 mammals and 178 birds. We welcome it as a further contribution to faunal literature. L. J.

The Origin of the Kirtland's Warbler. By P. A. Taverner. From the Ontario Natural Science Bulletin, No. 1, April 15, 1905.

The conclusion of this interesting paper may be given in the author's own words. "It seems probable, then, from our present knowledge, that Kirtland's Warbler is what remains of a once far more widely distributed species wintering along the Gulf States and spread from thence to the Bahama Islands. . . . The breeding grounds then likely covered the greater part of the Alleghanian Transition Zone." L. J.

The Ontario Natural Science Bulletin comes to us as an entirely new 48 page claimant for attention, under the able editorship of Mr. A. B. Klug. The first number contains about 28 pages of interest to bird students, and in all respects gives promise of being a valuable addition to the literature of natural science. The editor's list of 197 Wellington County birds, and his migration tables are worthy of special notice. We wish this new venture into the field of scientific literature every success. L. J.

The Warbler, in its new form and cover, steps into the ranks of bird magazines with the apparent purpose of presenting a series of accurate colored pictures of rare eggs and photographs of nests and eggs and nesting sites, and if the first two numbers are an indication of the future policy, to giving fuller accounts of birds in particular localities than most magazines seem to be willing to

give room for. It is well printed and its arrangement is good. Mr. John Lewis Childs, the editor, is to be congratulated upon the change from the first series. L. J.

With the first number of Volume VII., The Journal of the Maine Ornithological Society makes larger claims for our attention, in a new cover design, better paper, better print, and an increased number of pages. We are pleased to note that the Maine ornithologists are making good progress in bringing the state bird fauna upon a firm basis. It is inevitable that a state so old and so much written about should have amassed a great deal of questionable authenticity, particularly among the earlier writers. It is far more difficult to remove a species from a state list than to place one upon it. L. J.

It will be a source of pleasure to all bird lovers to know that Mr. Frank Chapman is preparing a complete revision of his admirable Handbook of the Birds of Eastern North America. It would have been ready ere this but for the delay of the committee having in charge another revision of the birds of North America. Changes have been so rapid and so radical these last few years, that an author always runs the risk of finding his work obsolete so far as the nomenclature is concerned, almost before the ink is dry. We hope for a fairly stable nomenclature. L. J.

PUBLICATIONS RECEIVED.

Amateur Sportsman, Vol. XXXII, Nos. 4, 5, 6.

American Ornithology, Vol. V, Nos. 3, 4, 5.

Bird-Lore, Vol. VII, No. 2.

Boys and Girls, Vol. IV, Nos. 3, 4, 5.

Bulletin No. 20, U. S. Dep't Agri. Biol. Survey. Coyotes in their Economic Relations. By David E. Lantz.

Bulletins 119, 120 120, 121, 122, University of Wisconsin Agricultural Experiment Station.

Bulletin 70, Pennsylvania State College Agriculture Experiment Station.

Colorado College Studies, Science Series. Vol. XI, Nos. 39–41.

Condor, The, Vol. VII, Nos. 2, 3.

Journal of the Maine Ornithological Society, The, Vol. VII, No. I.

Maine Sportsman, Vol. XII, Nos. 138, 139, 140.

Mitteilungen uber die Vogelwelt, Vol. IV, No. 7.

Naturaliste Canadian, Le, Vol. XXXII, Nos. 2, 3, 4.

Ohio Naturalist, The Vol. V, Nos. 4, 5, 6.

Ontario Natural Science Bulletin, The, Vol. I, No. 1.

Ornithologische Monatschrift, Vol. XXX, Nos. 2, 3.

Warbler, The, Vol. I. Nos. 1, 2.

LAUGHING GULL. (Larus atricilla.)
Typical Nest and Eggs.
Muskeget Id., Mass., July, 1904.

THE WILSON BULLETIN

NO. 52.

A QUARTERLY JOURNAL OF ORNITHOLOGY

VOL. XVII. SEPTEMBER, 1905. No. 3

BIRD MIGRATION AT OBERLIN, OHIO.

BY ROB'T L. BAIRD.

In The Wilson Bulletin No. 40, September, 1902, an article upon "The Spring Migration of 1901, With an Average Table for Lorain County, Ohio," occurs under the writer's name. The presnt article has to do with the southward as weil as with the northward migration, attempting to give the whole annual movement of the migratory birds. The former table of migrations was based upon a relatively few records, while the present one has for its basis all of the records made in the region of Oberlin for the past ten years.

For the greatest number of records I am indebted to Professor Lynds Jones, whose field studies have been so extensive about Oberlin. For many records I wish to express my thanks to Messrs. S. D. Morrill, D. F. Nye, and H. H. Skinner, who have shown great interest in the work and frequently accompanied us on trips. A large number of records are from my own note-books. Practically all of the records are from were made by myself, in the absence of Professor Jones.

It must be borne in mind that the dates given are for migraing birds. Several species which are listed among the migrants are represented all the year by a few individuals, while some which are given as passing north of this region to breed, and returning south of it to spend the winter, are represented all winter by a few individuals. Species belonging to both classes will be found mentioned in the appropriate places. Those persons who take the trouble to compare this series of

lists with that published in 1902 will discover some differences in the times of arrival from the south of several species. This difference is accounted for by the much greater number of records from which this list is made.

SPRING MIGRATION.

ARRIVAL		DEPARTURE
Feb. 15-Mar. 1	American Crow	November 1
	American Robin	November 15
	Bluebird	November 15
March 1-10	Black Duck	April 1
	Canada Goose	March 25
	Killdeer	November 15
	Broad-winged Hawk	
	Sparrow Hawk	Oct. 15-Nov. 15
	Northern Flicker	Oct. 15-Nov. 15
	Red-winged Blackbird	November 1
	Meadowlark	November 1
	Bronzed Grackle	November 1
	Song Sparrow	Oct. 10-Oct. 21
March 10-20	Red-breasted Merganser	April 25-May 10
	Baldpate	April 25
	Pintail	April 5
	American Golden-eye	March 28
	American Woodcock	
	Mourning Dove	October 25
	Marsh Hawk	
	Cowbird	November 1
	Rusty Blackbird	May 1-10
	Field Sparrow	October 15-25
	Fox Sparrow	April 25
	Towhee	October 25
	Migrant Shrike	October 31
March 20-31	American Merganser	May 1
	Mallard	March 28
	Greater Scaup Duck	May 20
	Lesser Scaup Duck	May 20
	American Coot	May 5
	Wilson Snipe	May 15
	Turkey Vulture	October 11
	Cooper Hawk	
	Belted Kingfisher	November 1
	Phœbe	October 15
	Chipping Sparrow	October 1-10
	Swamp Sparrow	October 1-10
	Brown Creeper	May 7

	Hermit Thrush	May 5
	Great Blue Heron	September 30
April 1–10	Pied-billed Grebe	May 10
	Hooded Merganser	April 25
	Buffle-head	May 1
	Pectoral Sandpiper	May 1
	Vesper Sparrow	November 1
	Purple Martin	Aug. 15-Sept. 5
	Barn Swallow	September 10–20
	Louisiana Water-Thrush	September 10
	American Pipit	May 20
	Brown Thrasher	October 1
	Golden-crowned Kinglet	May 1
	American Bittern	September 15
April 10–20	Horned Grebe	April 28
	Bonaparte Gull	May 20
	Ruddy Duck	May 10
	Greater Yellow-legs	May 15
	Bartramian Sandpiper	September 5
	Spotted Sandpiper	October 15
	Yellow-bellied Sapsucker	May 10–20
	Chimney Swift	October 10–20
	White-throated Sparrow	May 10–20
	Ruby-crowned Kinglet	May 15
April 20–30	Loon	
	Least Bittern	September 10
	Green Heron	November 15
	Solitary Sandpiper	September 10
	Yellow-legs	May 15
	American Osprey	May 7
	Red-headed Woodpecker	September 25
	Kingbird	September 15
	Crested Flycatcher	September 15
	Least Flycatcher	May 25
	Bobolink	October 1
	Baltimore Oriole	September 5
	Savanna Sparrow	May 12
	Grasshopper Sparrow	September 11
	Lark Sparrow	September 5
	White-crowned Sparrow	May 10–20
	Cliff Swallow	September 10–20
	Rough-winged Swallow	September 10–20
	Red-eyed Vireo	September 10–30
	Warbling Vireo	September 15
	Yollow-throated Vireo	September 15
	Blue-headed Vireo	May 15
	Black and White Warbler	September 20

	Blue-winged Warbler	September 5
	Nashville Warbler	May 25
	Yellow Warbler	September 10
	Myrtle Warbler	May 20
	Blk-thro'tdGreenWarbler	May 25
	Palm Warbler	May 13
	Oven-bird	September 20
	Northern Yellow-throat	September 20
	American Redstart	September 15
	Ca bird	October 1
	House Wren	September 25
	Long-billed Marsh Wren	September 10
	Blue-gray Gnatcatcher	August 25
	Wood Thrush	September 20
	Wilson Thrush	September 10
	Olive-backed Thrush	May 25
May 1-5—	Virginia Rail	September 5
	Sora	September 5
	Whippoorwill	
	Orchard Oriole	August 15
	Lincoln Sparrow	May 25
	Rose-breasted Grosbeak	August 20
	Indigo Bunting	Sept. 25-Oct. 5
	Scarlet Tanager	September 20
	Orange-crowned Warbler	May 20
	Northern Parula Warbler	May 15
	Blk-thro'td Blue Warbler	May 25
	Magnolia Warbler	May 25
	Cerulean Warbler	September 15
	Chestnut-sided Warbler	May 25
	Blackburnian Warbler	May 25
	Pine Warbler	May 13
	Water-Thrush	May 25
	Kentucky Warbler	May 25
	Yellow-breasted Chat	September 10
	Winter Wren	May 15
	Gray-cheeked Thrush	May 25
May 5-10	Common Tern	September 20
	King Rail	September 5
	Black-billed Cuckoo	September 25
	Nighthawk	September 20
	Ruby-thro'td Hum'ngbird	September 10
	Wood Pewee	September 25
	Green-crested Flycatcher	September 15
	Dickcissel	
	Prothonotary Warbler	May 15
	Brewster Warbler	

	Golden-winged Warbler	
	Tennessee Warbler	May 25
	Bay-breasted Warbler	May 23
	Black-poll Warbler	May 30
	Kirtland Warbler	May 11
	Prairie Warbler	May 15
	Hooded Warbler	May 25
	Wilson Warbler	May 30
	Canadian Warbler	May 25
May 10–15	Black Tern	September 10–25
	Least Sandpiper	May 20
	Yellow-billed Cuckoo	September 25
	Traill Flycatcher	August 25
	Cape May Warbler	May 20
	Connecticut Warbler	May 25
	Mourning Warbler	May 25
May 15	Turnstone	May 31
	Yellow Palm Warbler	May 25

FALL MIGRATION.

ARRIVAL		DEPARTURE
September 1–5	Pied-billed Grebe	October 25
	Herring Gull	May 20–30
	Bonaparte Gull	September 10–20
	Greater Yellow-legs	October 15
	Turnstone	September 10–20
	Blue-headed Vireo	September 10–20
	Nashville Warbler	October 15
	Blk-thro'td Blue Warbler	October 1
	Blk-thro'td Green Warbler	October 5
	Magnolia Warbler	September 25
	Chestnut-sided Warbler	September 10–20
	Water-Thrush	September 10–20
	Red-breasted Nuthatch	May 20
	Winter Wren	May 15–20
	Olive-backed Thrush	October 20
September 15–30	Pintail	
	American Coot	October 20
	Purple Finch	May 1–10
	White crowned Sparrow	October 10
	White-throated Sparrow	November 10
	Tennessee Warbler	September 25
	Myrtle Warbler	November 1
	Palm Warbler	October 1
	Golden-crowned Kinglet	May 1
	Ruby-crowned Kinglet	October 25

October 1–15	Horned Grebe	November 25
	Mallard	December 1
	Yellow-bellied Sapsucker	October 10–20
	State-colored Junco	April 20–30
	Fox Sparrow	November 15
	Brown Creeper	April 30
	Hermit Thrush	October 25
October 15–30	Loon	October 20–30
	Black Duck	November 20–30
	American Golden-eye	November 20
	Ruddy Duck	November 15
	Wilson Snipe	October 20–30
	Yellow-legs	October 20–30
	Tree Sparrow	April 20–30
November 1–30	American Merganser	December 20
	Hooded Merganser	November 20–30
	Greater Scaup Duck	Nov. 25–Dec. 10
	Bufflehead	November 25–30
	Horned Lark	March 1–15
	Lapland Longspur	April 10–20
	Northern Shrike	March 1–10
December 1—	Red-breasted Merganser	April 25–May 10
	Snowflake	March 1–15

WINTER RESIDENTS.

Herring Gull.	Purple Finch.
American Merganser (few).	Redpoll (rare).
Red-breasted Merganser (few).	Pine Siskin (rare).
Old Squaw.	Snowflake.
American Rough-legged Hawk.	Lapland Longspur.
Golden Eagle.	Tree Sparrow.
Snowy Owl (rare).	Slate-colored Junco.
Horned Lark.	Northern Shrike.
Hoyt Horned Lark.	Brown Creeper.
Canadian Pine Grosbeak.	Golden-crowned Kinglet.

PERMANENT RESIDENTS.

The *Ruffled Grouse*, which I include in this list, is, I think, extinct in this county. The last records I have of it are in 1899, March 11, 18, April 15, and May 8.

A pair of *Pileated Woodpeckers* have been all year a few miles east of Wellington, this county, and they have nested there.

Ruffled Grouse (extinct).	Northern Flicker.
Bob-white.	Blue Jay.

Mourning Dove.
Red-tailed Hawk.
Sharp-shinned Hawk.
Sparrow Hawk (few).
Pigeon Hawk.
Bald Eagle.
Long-eared Owl.
Barred Owl.
Screech Owl.
Great Horned Owl.
Belted Kingfisher (few).
Hairy Woodpecker.
Downy Woodpecker.
Pileated Woodpecker.
Red-headed Woodpecker (few).
Red-bellied Woodpecker.
American Crow (few).
Prairie Horned Lark.
Meadowlark (few).
American Goldfinch.
Vesper Sparrow (rare).
Song Sparrow.
Towhee (few).
Cardinal.
Cedar Waxwing.
Carolina Wren.
White-breasted Nuthatch.
Tufted Titmouse.
Chickadee.
Hermit Thrush (rare).
American Robin (few).
Bluebird (few).

The following notes will aid in understanding the list:

Horned Grebe.—Rarely seen in winter.

Herring Gull.—May well be classed as a winter resident. At least they are commonly found about Lake Erie until that freezes solidly; then they are found frequently about the harbor at Lorain.

Black Tern.—So far as I know, this bird does not nest in Lorain county. It is a summer resident, however, in this latitude, nesting commonly in the marshes just west of this county, about Sandusky.

American Merganser.—Was found January 1, 1901, at Lake Erie, and a number of other times in the winter. It seems commonly to remain as long as there is open water. Often found in pairs at this time. During the spring individuals visit the waterworks reservoir in the village of Oberlin.

Black Duck.—Also found occasionally in winter when there is open water. Since 1903 the common species here has been regarded as the *Red-legged Black Duck.*

Great Blue Heron.—The dates of this bird's arrival are, I am sure, much earlier than the most of those we have recorded. The main rivers of Lorain county are several miles distant on either side of Oberlin, hence we cannot visit these as frequently as we should.

Lesser Scaup Duck.—A few pairs remain to breed in the vicinity of Oberlin.

King Rail.—It has not been found nesting in the county, but undoubtedly would if suitable nesting places were to be found. It nests abundantly on Middle Bass Island.

Virginia Rail.—The record for May 22, 1897, is for nest and eggs showing that the bird must have been here two weeks or more earlier, though not seen.

American Woodcock.—In 1901 this bird was not found until April 19, when it was discovered with young. Hence its arrival was probably a month earlier.

Solitary Sandpiper.—I feel sure this bird must nest in the county, but it seems to disappear almost completely after the middle of May to reappear in July and August.

Broad-winged Hawk.—Was reported in 1903, Jan. 1 and 6, and March 13. I think this hawk is regularly a migrant, but a few may remain. Sometimes a good many are seen during migration.

Cooper Hawk.—The status of this bird is uncertain. A few winter here.

Golden Eagle.—Visits the shores of Lake Erie in the winter. Six or eight were seen February 8, 1904, perching on the blocks of ice out near open water.

Sparrow Hawk.—A few spend the winter, frequently coming into town at that time. In the winter I have found them eating English Sparrows in town.

Belted Kingfisher.—Will sometimes spend the winter if there is open water. Were found January 6, 1903. This last winter, 1904-5, they were found about both Vermilion and Black rivers.

Yellow-bellied Sapsucker.—This bird is mainly a migrant here, but I have two or three records of their nests being found. A nest with the birds was found July 1, 1901, at Chance Creek. Birds were found here July 14, 1897.

Least Flycatcher.—I have no record for this bird or its nest being found in the summer.

Cowbird.—I am sure the fall records for this and the Red-winged Blackbird can be made much later if other parts of the county are visited. In French Creek and Black River valleys, fifteen miles northeast of Oberlin, they were common in November, 1904.

Canadian Pine Grosbeak.—A rare winter visitor.

Purple Finch.—A winter resident, but seemingly more abundant in the spring. I can give no very regular dates when they seem to be more numerous than usual. The records are scattering ones from January to May.

White-winged Crossbill.—Very rare. Only found in 1902. Both records were at the same locality.

American Crossbill—Very erratic in migrations. There was another record in 1898 by W. L. Dawson, but I have not the exact date.

Pine Siskin.—In 1902 was found first, January 7, and occasionally later, until May 13.

Vesper Sparrow.—In winter of 1903-4 a Vesper Sparrow wintered in the northern part of the county. This is the only record I have of this species doing this.

Towhee.—This bird has wintered the last two years at Chance Creek, ten miles northwest of Oberlin.

Cardinal.—There is some movement among the Cardinals some years. In 1899 it was very marked, but as a rule the Cardinals seem more abundant in the winter. They are found here fairly commonly the year round.

Brown Creeper.—A fairly common winter resident, yet it seems to have a pretty regular migration season when it is more abundant.

Golden-crowned Kinglet.—A common winter resident, but far more abundant during migration. Its migration reaches its height about as that of the warblers begins.

Hermit Thrush.—One winter record, that of Dec. 4, 1903.

Black-throated Green Warbler.—An occasional pair nests in the county.

TWO BIRD DAYS NEAR WASHINGTON, D. C.

BY HARRY C. OBERHOLSER.

The vicinity of the city of Washington is relatively not a very good place for birds, even during seasons of migration. So far as we are aware, never more than 83 species have ever been noted here in a single day, and this exceptional record was made, of course, during the spring migration. The following lists, therefore, composed almost entirely of breeding birds, appear to be possibly worthy of publication, as an index of what is to be seen in this vicinity in summer.

On the first of these days, May 26th, 1905, observation was continued from 7:30 a. m. to 8:00 p. m.; and the route lay from the city eight or nine miles by water up the narrow, shallow, Anacostia river to beyond Bladensburg, well-known as a deep water port a hundred years ago, but now far beyond the reach of navigation except in small boats. The return was made over the same route. The parks of the city with the marshes, swamps, wooded banks, pastures, and fields along the stream furnish a desirable variety of country for ornithological investigations, and on this occasion 59 species were noted, of which all but two—the American Merganser and the Black-poll Warbler—must be regarded as summer residents.

Following is the list:

Merganser americanus.—American Merganser. One seen on the river.

Butorides virescens.—Green Heron. Common.

Nycticorax nycticorax nævius.—Black-crowned Night Heron. Common.

Actitis macularia.—Spotted Sandpiper. A few seen.

Zenaidura macroura.—Mourning Dove. One seen.

Cathartes aura septentrionalis.—Turkey Vulture. Common.

Buteo lineatus.—Red-shouldered Hawk. One observed.

Pandion haliætus carolinensis.—Fish Hawk. One seen.

Ceryle alcyon.—Belted Kingfisher. One seen.

Dryobates pubescens medianus.—Downy Woodpecker. Tolerably common.

Colaptes auratus luteus.—Flicker. Common.

Chactura pelagica.—Chimney Swift. Common in the city.

Tyrannus tyrannus.—Kingbird. One seen.

Myiarchus crinitus.—Crested Flycatcher. Common; nest in process of construction found.

Horizopus virens.—Wood Pewee. Common.

Empidonax virescens.—Green-crested Flycatcher. Common.

Cyanocitta cristata.—Blue Jay. Two heard.

Corvus brachyrhynchos.—American Crow. Tolerably common.

Corvus ossifragus.—Fish Crow. A few noted in Washington.

Agelaius phœniceus.—Red-winged Blackbird. Common.

Sturnella magna.—Meadowlark. One heard.

Icterus spurius.—Orchard Oriole. Tolerably common.

Quiscalus quiscalus.—Purple Grackle. A few noticed in the city.

Astragalinus tristis.—American Golfinch. Abundant.

Passer domesticus.—English Sparrow. Abundant in the city.

Spizella pusilla.—Field Sparrow. One heard.

Melospiza cinerea melodia.—Song Sparrow. Abundant.

Pipilo erythrophthalmus.—Chewink. Common.

Cardinalis cardinalis.—Cardinal. Abundant.

Cyanospiza cyanea.—Indigo Bunting. A few observed.

Progne subis.—Purple Martin. One observed.

Hirundo erythrogastra.—Barn Swallow. Tolerably common.

Riparia riparia.—Bank Swallow. Common.

Stelgidopteryx serripennis.—Rough-winged Swallow. Tolerably common.

Ampelis cedrorum.—Cedar Waxwing. A few noted.

Vireosylva olivacea.—Red-eyed Vireo. Abundant.

Vireosylva gilva.—Warbling Vireo. One heard.

Lanivireo flavifrons.—Yellow-throated Vireo. Common.

Vireo noveboracensis.—White-eyed Vireo. Abundant.

Minotilta varia.—Black and White Warbler. Common.

Vermivora pinus.—Blue-winged Warbler. One noted.

Compsothlypis americana usneæ.—Parula Warbler. A few observed.

Dendroica æstiva.—Yellow Warbler. Tolerably common.

Dendroica striata.—Black-poll Warbler. Common.

Seiurus aurocapillus.—Oven-bird. Common.

Seiurus motacilla.—Louisiana Water-Thrush. Two observed.

Geothlypis trichas.—Maryland Yellow-throat. Common.

Icteria virens.—Yellow-breasted Chat. Common.

Setophaga ruticilla.—American Redstart. Common; nest with sitting bird found.

Galeoscoptes carolinensis.—Catbird. Abundant.

Thryothorus ludovicianus.—Carolina Wren. Common.

Troglodytes aëdon.—House Wren. One heard.

Telmatodytes palustris.—Long-billed Marsh Wren. Abundant.

Bæolophus bicolor.—Tufted Titmouse. Common.

Penthestes carolinensis.—Carolina Chickadee. Common. Nest with young noted.

Polioptila cærulea.—Blue-gray Gnatcatcher. One noted.

Hylocichla mustelina.—Wood Thrush. Common.

Merula migratoria.—American Robin. A few noted in the city.

Sialia sialis.—Bluebird. Two observed.

On the second day, May 30, 1905, the observer was in the field from 6:30 a. m. to 6 p. m. A ride on the electric road for some nine miles northwest of the city on the Maryland side of the Potomac River, brought him to Cabin John Bridge, famous for being the second longest single stone arch in the world. This is one of the best places for birds in the neighborhood of Washington, and the entire day was spent in the valley of Cabin John Creek, along the canal which parallels the Potomac, and in the adjacent upland fields and woods. The number of different birds identified was 58, of which only one—the Lesser Scaup Duck—can be considered a transient. Species in the following list that were not observed on May 26 are designated by an asterisk:

***Fuligula affinis.**—Lesser Scaup Duck.—One seen on the Potomac River.

Actitis macularia.—Spotted Sandpiper. Tolerably common.

Cathartes aura septentrionalis.—Turkey Vulture. Common.

Ceryle alcyon.—Belted Kingfisher. One seen.

Dryobates pubescens medianus.—Downy Woodpecker. Tolerably common.

***Melanerpes erythrocephalus.**—Red-headed Woodpecker. One observed.

Colaptes auratus luteus.—Flicker. Tolerably common.

Chætura pelagica.—Chimney Swift. Common in the city.

***Trochilus colubris.**—Ruby-throated Hummingbird. One seen.

Tyrannus tyrannus.—Kingbird. One observed.

Myiarchus crinitus.—Crested Flycatcher. A few noted.

***Sayornis phœbe.**—Phœbe. Two seen.

Horizopus virens.—Wood Pewee. Common.

Empidonax virescens.—Green-crested Flycatcher. Tolerably common.

Cyanocitta cristata.—Blue Jay. Tolerably common.

Corvus brachyrhynchos.—American Crow. A few noted.

Agelaius phœniceus.—Red-winged Blackbird. Two seen along the river.

Icterus spurius.—Orchard Oriole. Tolerably common.

***Icterus galbula.**—Baltimore Oriole. Tolerably common.

Quiscalus quiscula.—Purple Grackle.—Tolerably common in the city.

Astragalinus tristis.—American Goldfinch. Abundant.

Passer domesticus.—English Sparrow. Common.

***Ammodramus savannarum passerinus.**—Grasshopper Sparrow. One heard.

***Spizella socialis.**—Chipping Sparrow. Tolerably common.

Spizella pusilla.—Field Sparrow. Common.

Melospiza cinerea melodia.—Song Sparrow. Common.

Pipilo erythrophthalmus.—Chewink. A few observed.

Cardinalis cardinalis.—Cardinal. Abundant; nest with young found.

Cynospiza cyanea.—Indigo Bunting.—Tolerably common.

***Piranga erythromelas.**—Scarlet Tanager. One seen.

***Piranga rubra.**—Summer Tanager. One observed.

Progne subis.—Purple Martin. A few seen.

Stelgidopteryx serripennis.—Rough-winged Swallow. A few noted.

Ampelis cedrorum.—Cedar Waxwing. Tolerably common. a new nest found.

Vireosylva olivacea.—Red-eyed Vireo. Abundant; a pair seen building a nest.

Vireosylva gilva.—Warbling Vireo. One heard.

Lanivireo flavifrons.—Yellow-throated Vireo. Common.

Vireo noveboracensis.—White-eyed Vireo. Common.

Mniotilta varia.—Black and White Warbler. A few noted.

***Helmitheros vermivorus.**—Worm-eating Warbler. One observed.

Compsothlypis americana usneæ.—Parula Warbler. A few noticed.

Dendroica æstiva.—Yellow Warbler. Tolerably common in the city.

Seiurus aurocapillus.—Oven-bird. Abundant.

Seiurus motacilla.—Louisiana Water-Thrush. Two seen, evidently near their nest.

Geothlypis trichas.—Maryland Yellow-throat. Common.

Icteria virens.—Yellow-breasted Chat. Common.

Setophaga ruticilla.—American Redstart. Common; nest in process of construction found.

Galeoscoptes carolinensis.—Catbird. Abundant.

***Toxostoma rufum.**—Brown Thrasher. A few noted.

Thryothorus ludovicianus.—Carolina Wren. Tolerably common.

Troglodytes ædon.—House Wren. Two noted.

***Sitta carolinensis.**—White-breasted Nuthatch. Tolerably common.

Bæolophus bicolor.—Tufted Titmouse. Common.

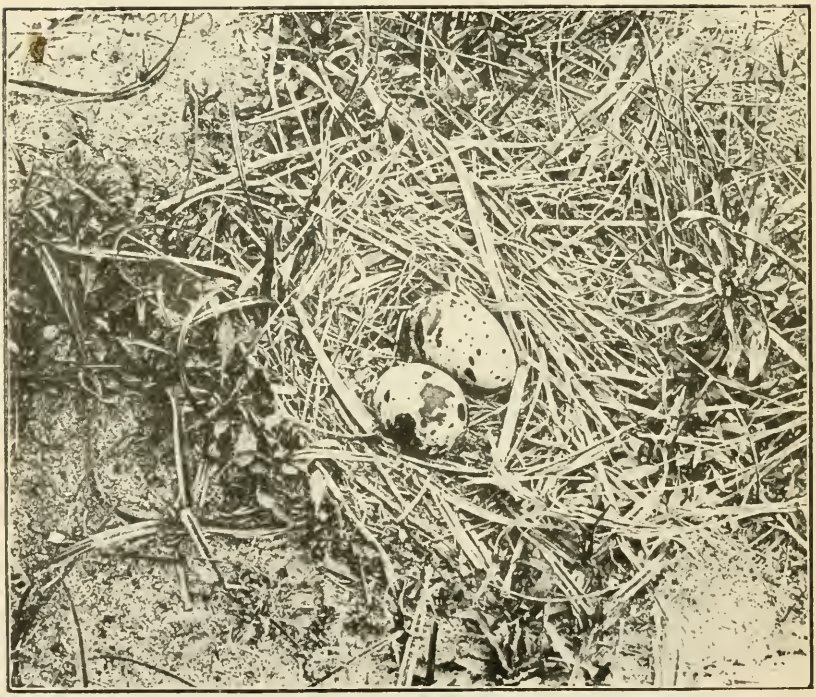
Penthestes carolinensis.—Carolina Chickadee. Tolerably common.

Polioptila cærulea.—Blue-gray Gnatcatcher. A few noted.

Hylocichla mustelina.—Wood Thrush. Common.

Merula migratoria.—American Robin. Tolerably common.

Sialia sialis.—Bluebird. Two observed.



COMMON TERN. (Sterna hirundo.)
Nest and Eggs.
Woepecket Id., Mass.

FURTHER NOTES ON THE BIRDS OF MIDDLE SOUTHERN OHIO.

BY W. F. HENNINGER.

Since publishing my list of the Birds of Middle Southern Ohio in the Wilson Bulletin of Sept. 1902, enumerating 209 plus 7 hypothetical species I have been able to add two new species, the *Bonaparte Gull* and the *Red-legged Black Duck* (Wilson Bulletin, Dec. 1902, pages 133 and 134). This spring I again spent three weeks in southern Ohio, staying in Pike county from May 17th to May 26th, and in Scioto county from May 26th to June 3d. Most of this time I was in the field and the result of this work was an increased knowledge of many birds as well as the chance to transfer two species from the hypothetical to the list proper. These two are *Buteo platypterus*, seen several times in Scioto county and *Helminthophila chrysoptera*, which I met at the edge of some wooded ravines, singing its lazy "zeezee zeezee," as a local and not common summer resident near Bloom Switch on the B. & O. S. W. R. R. in Scioto county. Both species had previously been studied at Tiffin and an error was therefore excluded; they were not found in Pike county. The list of Middle Southern Ohio birds is therefore brought up to 213 plus 5 hypothetical species, making a total of 218 species. There are also a number of field notes in addition to those published in 1902, which add to our knowledge concerning the birds of this region and they are given in connection with references to Dawson's and Jones' works on the birds of Ohio.

1. *Aythya affinis*.—Lesser Scaup Duck.

Two males seen, one shot May 22 on a thoroughfare in the bottoms along the Scioto River. Contents of craw and stomach, fishworms. Four males seen May 24th, 1905. Latest previous spring record May 14th, 1902. Dawson records but this one date, as if I had found this duck on that date only. Here are all the data, to avoid this in the future: Nov. 16, 1898, male shot; April 8, 1899, May 7, 1900, March 10 till May 2, 1901, March 21 till May 14, 1902; May 24, 1905.

2. *Meleagris gall pavo fera.*—Wild Turkey.

There is nothing at hand to substantiate the opinion expressed by Dawson and Jones, that this bird may still be found westward from Scioto county. The Wild Turkey has been extinct in these counties since the Civil War. That this is the wildest region in Ohio will be seen again by the records I sent in to Prof. Harlan E. Hall for his "Manuals of Ohio."

3. *Elanoides forficatus.*—Swallow-tailed Kite.

While my record of this species is the last one in the state, both Jones and Dawson overlooked one record, that one given by Oliver Davie on page 198 of his Nests and Eggs (5th edit.), a specimen killed in Ohio July 10, 1883.

4. *Empidonax flaviventris.*—Yellow-bellied Flycatcher.

A few more explicit remarks of my acquaintance with this bird seem timely, as Dawson never met it in the state and Jones but once. On May 7, 1897, I saw my first one in an apple orchard at South Webster, sitting on a low hanging bough; identification was easy. May 17, 1898, in some heavy brush under some tall sycamores, on the Scioto River, near Waverly. And on May 2, 1901, I shot one in a simular place as the preceding one, though two miles farther south. The bird flew up from the tangled brush, out of which I almost kicked it, with the explosive note, "pshyuk," then sitting on a higher limb called out two notes "pshui-pi." The specimen could not be preserved. My only fall record for the state is Tiffin, Ohio, Sept. 17, 1904.

5. *Agelaius phœniceus.*—Red-winged Blackbird.

Since 1902 a large swamp of about twelve acres was formed near Bloom Switch by an overflow of Hales Creek and this has brought in great numbers of this species. On May 31st, 1905, I found about thirty nests with young and eggs at this place, a phenomenal increase over the past.

6. *Agelaius phœniceus fortis.*—Thick-billed Redwing.

Pike county speciments shot in the fall months seem to be intermediates between this and the preceding species. This is my opinion as well as Dawson's, to whom I sent the specimens in question, as I could not get Ridgway's book on the Birds of Northern and Middle America.

7. *Otocorys alpestris praticola.*—Prairie Horned Lark.

Observations of this spring prove this bird to be increasing in Pike county.

8. *Icterus galbula.*—Baltimore Oriole.

Rapidly increasing in Scioto county.

9. *Ammodramus sandwichensis savanna.*—It was a great surprise to me to hear of the rarity of this bird in Ohio in contrast with my experience in southern Ohio. The very first time I met this bird in Scioto county, near South Webster, June 6, 1897, I saw a female leading a brood of four young along a fence. For northern Ohio I have only two records, March 19, 1903, and May 10, 1904, Tiffin, Ohio.

10. *Coturniculus savannarum passerinus.*—Grasshopper Sparrow.

This bird is now (1905) beginning to come into the bottoms; heretofore I had found it on the upland meadows only. On the increase.

11. *Peucæa æstivalis bachmanii.*—Bachmann Sparrow.

At last I have again found this bird in Scioto county, a brood of young on May 31, 1905, near Bloom Switch, Ohio. Having heard its song at Lynchburg, Va., this spring and seen it almost daily, and pronouncing it as before an excellent song, I nevertheless differ from Dawson, who considers it the best songster among our North American sparrows. I still prefer the Lark Sparrow, because Bachmann's Sparrow's song is more feminine, full of poetic reverie and lacks the virile qualities of the Lark Sparrow's song. This is of course a matter of personal taste and opinion.

12. *Melospiza cinerea melodia.*—Song Sparrow.

13. *Vireo gilvus.*—Warbling Vireo.

Dawson is of the opinion that these species are more common in northern than in southern Ohio during the summer, to which I never consented. Recent work only confirming opinion that the Song Sparrow is equally common in both parts of the state. The Warbling Vireo is even more common in southern than northern Ohio, but seems to cling more to the bottom lands, frequently the hill parts mostly in the vicinity of the houses only.

14. *Spiza americana.*—Dickcissel.

Increasing but very slowly in Pike county.

15. *Vireo philadelphicus.*—Philadelphia Vireo.

No new records for southern Ohio, but one for northern Ohio, May 9, 1903, a pair at Tiffin, Ohio.

16. *Vireo noveboracensis.*—White-eyed Vireo.

This bird can now be termed a rare and local summer resident in Scioto county. Observed May 27 to June 3d, 1905, at Bloom Switch and South Webster.

17. *Helmitheros vermivorus.*—Worm-eating Warbler.

Increase great in both Pike and Scioto counties. Is now a not rare summer resident in suitable localities. Male shot May 31st, 1905, with large testicles. Song, more rattling than the Chipping Sparrows, which it closely resembles.

18. *Dendroica striata.*—Black-poll Warbler.

Shot May 19, 1905, male, Cooperville, Pike county. First spring record for southern Ohio. Song, "tsee tsee tsee."

19. *Dendroica dominica albilora.*—Sycamore Warbler.

Four seen May 27, 1905, at Bloom, Scioto county. Song, "wit ta chip cheechee chea," last note rising suddenly.

20. *Dendroica blackburniæ.* Blackburnian Warbler.

Common spring migrant. Song, two kinds: I. "choo choo choo, chichichro'chro'." II. "choo wich; choo wich; choo wich."

21. *Geothlypis formosa.*—Kentucky Warbler.

Increasing in Pike county, still rather rare. Dawson's description of notes, "pe-e-oodle" repeated, reminding one of the Carolina Wren, is the best ever given. Shot May 19, 1905, at Jasper, Pike county.

22. *Icteria virens.*—May 17, 1901 (Pike county), another one; likewise, one on May 31, 1905, was a set of four *fresh* eggs in Scioto county. What is the reason for this peculiarity in breeding habits?

23. *Dendroica discolor.* Prairie Warbler.

In 1902 I regarded the occurrence of this warbler as accidental, having found but one specimen in eight years. Now I have found him to be a not common breeder in Scioto county only. Having studied the bird and its song thoroughly this spring at Lynchburg, Va. I was surprised, when suddenly I

was greeted by its peculiar notes at Bloom Switch on a hillside covered with second growth oak scrub and stones, on a place often hunted over in the past. There he was building a nest, but before it was finished I had to leave. I found him frequently there, especially on May 31st, but it takes a stout heart to penetrate this scrub very much, for the deadly copperhead is at home there with an occasional rattlesnake added for special enjoyment. The song is loud, of a shrill rising nature as if it was climbing up an ethereal ladder, and cannot be mistaken under any circumstances.

All told, the Bird World of southern Ohio is enriched more and more with new forms and being but little, if ever, disturbed, bids fair to remain in the future what it has been to the writer in the past, a source of joy and delightful study for the lover of birds as well as for the professional ornithologist.

THE DRUMMING OF THE RUFFED GROUSE.

BY LYNDS JONES.

Appropos of the revived discussion in regard to the manner in which the male Ruffed Grouse produces the well known drumming sounds, I wish to contribute some personal experiences with this bird in my old home woods in central Iowa. Unfortunately, this part of Northern Ohio, Lorain County, has seen about the last of this interesting and disappearing grouse.

The old home grove was divided into two tracts by an intermittent stream with its grassy bottom. The small eastern portion covered but three hills, the much larger western portion covered eight hills, all of which radiated from a neck of the highland scarcely one hundred yards wide, yet the semi-circumference of these eight hills, as they faced Sugar Creek to the north and west, was fully a mile and a half. The west part of the woods always boasted two breading pairs of Ruffed Grouse, both of which occupied the central hills for drumming. Their drumming places varied from year to year, but were never near the bottoms of the ravines. Nor did I find them upon the hill-tops, rather a little to one side of the top, generally to the right, as one faces the creek.

The woods was wholly deciduous, hardwoods predominating. In about 1850 the large timber had been almost intirely cut off, but here and there old logs, the remains of trees sometimes five feet in diameter, lay rotting. Here and there one of the original giants stood, overtopping the second growth for nearly half its height. A few large boulders lay exposed on the hill-tops. Huge stumps were numerous, most of them well rotted. In most places the second growth was thick, with the hazel bushes and berry vines making a dense thicket, except where the wild plum and crab-apple thickets occurred.

In this woods the grouse could be heard drumming at almost any time of day, from March well toward November, though after May the drumming was far less frequent, and sometimes practically ceased during July and August.

As a boy I often stole near the drumming grouse, but was

too much afraid of the big noise to venture closer than to feel the impact of the air as the bird drummed. His choice of a drumming place in the midst of a thicket made it impossible to see him until within less than twenty feet. But with ripening years fear of the noise and of the bird which could produce such a noise, lessened, until curiosity to see the bird in the act of drumming entirely overcame fear.

The method which I found successful in most cases was as follows: The particular drumming place was noted when a bird began a series of drummings, and a start toward it was made boldly, but as the place was approached caution became necessary. While still some hundred yards away I made no move forward until the bird began to drum, then rushed forward with as little noise as possible as long as drumming continued, stopping abruptly behind some cover when the long roll ceased, to await the next performance When within a short distance of the performer, no advance was made until the beginning of the long roll. In this way it was usually posible to approach within ten feet of the bird, provided some tree or stump furnished a good cover to leeward, where his movements could be observed closely and continuously. By this means I have seen the bird performing on logs, on stumps, at the base of large trees, on stones, and on the ground. I have seen them from behind, from the front, and from the side, at distances of ten feet and less during the whole drumming performance. I have even captured the bird just as he was finishing the long roll, by rushing upon him during the later part of the roll.

One may be hardly certain just what the bird does while drumming, but some things he evidently does not do, and some inferences may be confidently stated. In the first place, he clearly does not strike the side of the log or stone upon which he may be perched, or the tree or ground, with his wings. If he did the wing strokes would certainly leave some marks. The logs chosen are usually more or less covered with moss, and the parts of the log where the birds perform are not worn, but on the contrary, the moss at this place is not disturbed. It has been stated that the sound is produced by the wings striking the sides of the body. Unless my eyes always deceaved me this is not what the birds which i watched did, but the wings

were carried well in front of the body when the blow was delivered, the bird assuming a perpendicular position while drumming. Such a strong downward stroke would seem likely to drive the bird into the air. I have tried to produce the sound by striking a wing against a surface like a log or stone, and failed to produce more than a faint echo. Striking the wing against feathers upon a bird's body produced no better results. Some have argued that the wings striking together would produce the effect. I am not prepared to say that the wings do not touch; possibly they do,but feathers striking together could hardly produce the strong concussion which the drumming is accompanied by. When one is within twenty feet of the performing bird the concussion is sufficient to force the clothing against ones body as the discharge of a cannon does. This concussion must be accounted for by the advocates of the theory that the bird produces the sound by expelling air from the lungs at the instant of the wing stroke. Does not the concussion of the air forced out from between the wings by the great force of the stroke produce the boom?

TWO WEEKS WITH THE BIRDS IN KENT, CONN.

BY CARLETON SCHALLER.

Kent is situated in the Litchfield hills about four hundred feet above sea level. The surrounding hills are well wooded, but nearly all of the virgin timber has been cut down and is replaced by smaller trees.

A small pond about a mile below Kent was often visited. This pond is about a quarter of a mile long and an eighth of a mile wide. The woods at either end are flooded and the trees are dead and decayed, forming an ideal place for *Aix sponsa*. The pond is surrounded by cat-tails and rushes. There are also a good many pond lilies. A small river (the Housatonic) runs through the country covered by this list.

The writer wishes to thank Mr. Herbert K. Job for several localities that he very kindly gave him.

The country having been briefly described, the following list represents the birds observed between July 8 and 20, 1905.

1. **Anas obscura.**—Black Duck. One seen at the pond July 12.
2. **Aix sponsa.**—Wood Duck. Common at the pond.
3. **Ardea herodias.**—Great Blue Heron. One seen at the pond July 13.
4. **Butorides virescens.**—Green Heron. Common at the pond.
5. **Actitis macularia.**—Spotted Sandpiper. Several seen in various places.
6. **Bonasa umbellus.**—Ruffed Grouse. Common.
7. **Accipter velox.**—Sharp-shinned Hawk. One seen July 14.
8. **Accipter cooperii.**—Cooper's Hawk. One female seen July 20.
9. **Buteo borealis.**—Red-tailed Hawk. Several observed.
10. **Ceryle alcyon.**—Belted Kingfisher. Several observed at the pond.
11. **Dryobates villosus.**—Hairy Woodpecker. One seen July 11.
12. **Dryobates pubescens medianus.**—Downy Woodpecker. Common woodpecker.
13. **Colaptes auratus luteus.**—Northern Flicker. Common.
14. **Antrostomus vociferus.**—Whipporwill. Common.
15. **Chordeiles virginianus.**—Nighthawk. Quite common.
16. **Chætura pelagica.**—Chimney Swift. Abundant.
17. **Trochilus colubris.**—Ruby-throated Hummingbird. Several observed.

18. **Tyrannus tyrannus.**—Kingbird. Commonest flycatcher.
19. **Myiarchus crinitus.**—Crested Flycatcher. One seen July 8.
20. **Sayornis phœbe.**—Phœbe. Common.
21. **Contopus virens.**—Wood Pewee. Common.
22. **Empidonax minimus.**—Least Flycatcher. Locally common.
23. **Cyanocitta cristata.**—Blue Jay. Common.
24. **Corvus brachyrhynchos.**—Common Crow. Common.
25. **Agelaius phœniceus.**—Red-winged Blackbird. Common at the pond.
26. **Sturnella magna.**—Meadowlark. Several heard.
27. **Icterus galbula.**—Baltimore Oriole. Several observed.
28. **Passer domesticus.**—Field Sparrow. Common. village.
29. **Astragalinus tristis.**—American Goldfinch. Abundant.
30. **Spizella socialis.**—Chipping Sparrow. Common.
31. **Spizella pusilla.**—Field Sparrow. Common.
32. **Melospiza cinerea melodia.**—Song Sparrow. Common.
33. **Melospiza georgiana.**—Swamp Sparrow. Common at the marshes.
34. **Pipilo erythrophthalmus.**—Towhee. Common.
35. **Zamelodia ludoviciana.**—Rose-breasted Grosbeak. Common.
36. **Cyanospiza cyanea.**—Indigo Bunting. Abundant.
37. **Piranga erythromelas.**—Scarlet Tanager. Several observed.
38. **Petrochelidon lunifrons.**—Cliff Swallow. Locally common.
39. **Hirundo erythrogastra.**—Barn Swallow. Common.
40. **Iridoprocne bicolor.**—Tree Swallow. Several observed.
41. **Ampelis cedrorum.**—Cedar Waxwing. Common.
42. Vireo olivaceus.—Red-eyed Vireo. Abundant.
43. **Minotilta varia.**—Black and White Warbler. Common.
44. **Helmitheros vermivorus.**—Worm-eating Warbler. Two adults and three young were observed July 11 on the slope of a hill. One was seen gleaning along the limbs of a tree and the others remained about two feet from the ground. The birds were observed for some time and some very good views were obtained.
45. **Helminthophila chrysoptera.**—Golden-winged Warbler. One observed July 10.
46. **Dendroica æstiva.**—Yellow Warbler. Common.
47. **Dendroica pensylvanica.**—Chestnut-sided Warbler. Common.
48. **Seiurus aurocapillus.**—Oven-bird. Commonest Warbler.
49. **Seiurus motacilla.**—Louisiana Water-Thrush. One seen at the pond July 14.
50. **Geothlypis trichas brachidactyla.**—Northern Yellow-throat Several observed.
51. **Wilsonia canadensis.**—Canadian Warbler. Several observed.
52. **Setophaga ruticilla.**—Redstart. Common.
53. **Galeoscoptes carolinensis.**—Catbird. Common.
54. **Toxostoma rufum.**—Brown Thrasher. Common.

55. **Troglodytes aëdon.**—House Wren. Common.
56. **Sitta carolinensis.**—White-breasted Nuthatch. Common.
57. **Penthestis aurocapillus.**—Chickadee. Common.
58. **Hylocichla mustelina.**—Wood Thrush. Common.
59. **Merula migratoria.**—Robin. Common.
60. **Sialia sialis.**—Bluebird. Several observed.

There were several birds whose identification was not made perfectly, so I have eliminated them from the list.

JULY HORIZONS.

While the interest shown in the proposed work was not widespread, nor participated in by many workers, the lists received seem worthy of notice in print. These lists should form the nucleus around which a fairly complete list of breeding birds should finally grow. No locality is of so little importance that such a list of breeding birds is not worth while. If the bird population is shifting summer lists for successive years will prove it. If the influence attending more complete settlement are affecting the birds these summer lists will prove it. If the regions immediately bordering trolley car lines and similar evidences of the march of suburbanizing the country districts are studied carefully now, and as carefully after these things have been established, we shall know what effect they have upon the whole bird population of these and adjacent regions, and their effect upon the individual species inhabiting such regions. There is every reason for bird lovers to keep themselves busy during the summer months. The face of Nature is rapidly changing.

Morton Park, Ill.—Banks of the DesPlaines River. July 1, 9 to 11 a. m. Bank Swallow, 2; Barn Swallow, 2; Bobolink, 10; Brown Thrasher, 3; Least Bittern, 1; Bluebird, 2; Crow, 2; Cedar Waxwing, 1; Catbird, 20; Yellow-billed Cuckoo, 6; Chimney Swift, 6; Mourning Dove, 2; Northern Flicker, 9; Crested Flycatcher, 3; Bronzed Grackle, 31; Goldfinch, 5; Rose-breasted Grosbeak, 5; Pied-billed Grebe, 1; Sparrow Hawk, 2; Indigo Bunting, 4; Blue Jay, 4; Belted Kingfisher, 2; Kingbird, 2; Meadowlark, 68; Orchard Oriole, 1; Purple Martin, 15; Robin, 13; Song Sparrow, 10; Field Sparrow, 3; Yellow Warbler, 4; Wood Pewee, 3; Hairy Woodpecker, 1; Red-headed Woodpecker, 2. 35 species, 255 individuals.

Mr. and Mrs. Orpheus M. Schantz.

Little Silver, New Jersey.—July 1, 6 a. m. to 7:30 a. m., and 4 to 5 p. m. Raining in morning; clear in afternoon. East wind, temp. 76°. Green Heron, 1; Black-crowned Night Heron, 1 Ad.; Virginia Rail, 2 Im. 2 Ad.; Spotted Sandpiper, 15; American Osprey, 9; Flicker, 1; Chimney Swift, 15; Kingbird, 1; Wood Pewee, 1; Common Crow, 5; Fish Crow, 8; Cowbird, 1; Red-winged Blackbird, 25; Meadowlark, 5; Purple Grackle, 8; American Goldfinch, 1; Sharp-tailed Sparrow, 20; Seaside Sparrow, 6; Chipping Sparrow, 3; Song Sparrow, 6; Purple Martin, 12; Cliff Swallow, 3; Barn Swallow, 4; Brown Thrasher, 2; Long-billed Marsh Wren, 20; Robin, 6.

CARLETON SCHALLER.

New York City.

Wilkinsburg, Allegheny County, Pa.—12 to 5 p. m., July 4, and 12 to 5 July 8. Woodland stream, dry woods and upland fields. Area traversed about 40 acres. Exceedingly hot, with a 15 minute thunder shower. Cardinal, 4; Wood Thrush, 5; Indigo Bunting, 3; Song Sparrow, 6; American Crow, 1; Oven-bird, 3; Northern Yellow-throat, 11; Field Sparrow, 3; Red-winged Blackbird, 4; Goldfinch, 6; Wood Pewee, 3; Grasshopper Sparrow, common; Cowbird, 5; Towhee, 7; Yellow-breasted Chat, 2; Red-eyed Vireo, common; Catbird, 3; Louisana Water-Thrush, 1; Chimney Swift, common; Kentucky Warbler, 14; Black-throated Blue Warbler, 2; Yellow-throated Vireo, 3; Least Flycatcher, 1; Chipping Sparrow, common; Phœbe, 1; Meadowlark, 8; Chickadee, 5; Redstart, 1; Tufted Titmouse, 5; No. Flicker, 3; Hairy Woodpecker, 1; House Wren, 9; Crested Flycatcher, 1; Kingbird, 3; Red-headed Woodpecker, 1; Mourning Dove, 1; Bob-white, 1; Black-billed Cuckoo, 2; Pigeon Hawk, 1; Scarlet Tanager, 2; Rose-breasted Grosbeak, 3; Baltimore Oriole, 1; Barn Swallow, common; Warbling Vireo, 1; Green-crested Flycatcher, 4; Purple Martin, 3; Bluebird, 2; American Robin, common; Carolina Wren, 2; Yellow Warbler, common; Cerulean Warbler, 1; Nighthawk, 4; Vesper Sparrow, common. Nests discovered.—Ovenbird, 2 young, 1 egg; 1 Cowbird's egg; Indigo Bunting, 3 young; Indigo Bunting, 3 eggs. C. LEON BRUMBAUGH.

Southern Hamilton Township, Mercer Co., N. J.—July 4, 1905. 12 hours; start, 5:30. Weather fine, except heavy fog early in a. m. 60 species; about 56 individuals. Green Heron, 2; Spotted Sandpiper, 4; Killdeer, 7; Bob-white, 2; Mourning Dove, 4; Turkey Vulture, 9; Broad-winged Hawk, 2; American Sparrow Hawk, 2; Yellow-billed Cuckoo, 3; Belted Kingfisher, 1; Downy Woodpecker, 3; Northern Flicker, 13; Chimney Swift, 46; Ruby-throated Hummingbird, 1; Kingbird, 4; Crested Flycatcher, 3; Phœbe, 1; Wood Pewee, 12; Green-crested Flycatcher, 5; Blue Jay, 6; American Crow, 8; Cowbird, 3; Red-winged Blackbird, 12; Meadowlark,

9; Orchard Oriole, 7; Purple Grackle, 13; American Goldfinch, 2; Vesper Sparrow, 5; Grasshopper Sparrow, 10; Chipping Sparrow, 19; Field Sparrow, 8; Song Sparrow, 43; Towhee, 6; Cardinal, 6; Rose-breasted Grosbeak, 1; Indigo Bunting, 9; Scarlet Tanager, 2; Purple Martin, 7; Barn Swallow, 11; Bank Swallow, 16 Rough-winged Swallow, 7; Red-eyed Vireo, 26; Warbling Vireo, 2; Yellow-throated Vireo, 6; White-eyed Vireo, 5; Black and White Warbler, 3; Yellow Warbler, 1; Oven-bird, 8; No. Yellow-throat, 5; American Redstart, 4; Catbird, 14; Brown Thrasher, 2; Carolina Wren, 1; House Wren, 3; White-breasted Nuthatch, 4; Tufted Titmouse, 16; Carolina Chickadee, 10; Wood Thrush, 6; Robin, 95; Bluebird, 12. CHARLES H. ROGERS.

INFORMATION WANTED.

Many times local papers, or even the large dailies, contain notices of the wholesale destruction of birds by severe storms. Only occasionally are such notices found in scientific papers. It is true that one cannot always believe press notices, particularly when they are of a sensational character. Our Weather Bureau is chiefly concerned with meteorology, but it is gratifying to notice that reports of observation are accompanied by some mention of the effects of storms upon crops and animals. Such reports may be supposed to be accurate. Everybody believes that weather, whether in the form of a severe storm, or a period of unusual hot, or cold, or wet, or dry weather, has its immediate effect upon animals as sensitive as birds are to weather.

The information called for is twofold: First, personal testimony of any marked effect of any sort of weather on the birds. Second, clippings, or references to notices in papers not scientifically inclined, of the effects of weather on birds. The editor particularly desires information regarding press notices, or verbal information, concerning the effect of weather, in the form of severe storms or heavy winds, upon the Passenger Pigeons when they were so vastly numerous; and upon Bob-white and any of the grouse. The object is to gather together as much of such information as possible while it can be obtained.

GENERAL NOTES.

WIDOW HUMMER.

BY FRANK BRUEN.

May 30, 1900.—The writer and his bird-partner, while taking an "all day with the birds," paused to eat their picnic breakfast in a but little used stone quarry, just off the the country road. There was a forest upon the east, and bushes, small trees, and a small apple orchard formed the remaining boundaries. Perched upon the granite walls we had an admirable place to see and hear the many birds. Scarlet Tanagers (whose nest we found later), Rose-breasted Grosbeaks, Redstarts and Ovenbirds, Chestnut-sided Warblers and Wood Thrushes were particularly in evidence.

All at once a male humming bird appeared upon the dead top of an apple tree, a female being seen soon afterwards upon one of the steel guy ropes attached to the derrick. During that summer we stopped many times to visit Mr. and Mrs. Hummer, and although we never found the nest, one or the other bird was always in evidence on the favorite perches.

Next year we went there again to renew our acquaintance, and perchance to find the little home; but alas, sorrow had come to the poor little female and her mate was never seen; but the pathetic little figure of the faithful, lonely widow was nearly always seen perched upon one of the ropes or the apple tree. Many were our queries. Had the male deserted his mate? Was he dead? We preferred to think him dead.

In 1902, we were eager to know if the little "widow," as we always called her, would still remain faithful to her lost love—but we visited the place in vain—she was seen no more by us. Had she died or gone off with a new mate? *Quien sabe?*

Bristol, Conn., Dec. 1904.

THE LOUISIANA WATER-THRUSH IN PHILADELPHIA IN SUMMER.

BY CHARLES H. ROGERS.

On June 14th, the only day this year, so far, that I have hunted on the Wissahickon Creek, I found two of this species (*Seiurus motacilla*) on the left bank of that stream, just above the Valley Green Hotel. With beaks full of food they chirped continually in protest at my presence, and altogether showed plainly that they had young in the immediate vicinity.

A nest recorded by Mr. H. K. Jamison (O. & O., 1891) is the only other breeding record inside the city line with which I am acquainted. It also was on the Wissahickon.

Crosswicks, N. J.

THE WILSON BULLETIN.

A Quarterly Magazine Devoted to the Study of Living Birds.
Official Organ of the Wilson Ornithological Club.

Edited by LYNDS JONES.

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EDITORIAL.

The editor spent a profitable and pleasant week, from August 26 to September 2, inclusive, with Dr. T. M. Taylor, on a sailing cruise among the islands of Lake Erie. The object of this cruise was to determine, if possible, whether or not the birds actually cross Lake Erie by this half land route in preference to crossing the broad expanse of water elsewhere. The most favorable point for this work proved to be the south point of Pelee Island, where most of the time was spent. The work was planned to be done in conjunction with Messrs. B. H. Swales and P. A. Taverner, of Detroit, and A. B. Klug and W. E. Saunders, of Ontario, who were to make observations upon the southern point of Point Pelee, but it was not found possible to join forces. A report upon the work accomplished may be looked for in the December number of this Bulletin, or in the next number of the Michigan Bulletin.

The proposed July All Day Work did not call many into the field. The weather at Oberlin was too stormy, during the first week of that month, to make field work practicable. We may hope for better weather and a larger number of lists next July.

It is not to early too begin planning for the winter work. It is always interesting to make at least three field studies during December for the purpose of determining what species may linger into the month, and what species are tardy about arriving from the north. If the later records are clearly understood, these December records are of great importance. It is essential to know when winter has really begun.

The editor is obliged to announce that the department of Publications Received must go over until the next Bulletin. Several pa-

pers of more than usual interest and value have been received, which merit more attention than it has been possible to give them during the broken summer time.

Members of the Wilson Ornithological Club should not fail to remember the annual election of officers. The constitution provides that nominations for officers should be made during the month of September. If notices from the Secretary have not reached you do not wait but send a full nomination card to Lynds Jones, Oberlin, Ohio, at once. Your interest shown in the Club in this way will be a great encouragement to the officers.

THE
WILSON BULLETIN

NO. 53.

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A-BIRDING AMONG THE NEW JERSEY PINES.

CHRESWELL J. HUNT.

It was on the morning of May thirty-first, 1905, that three of us started from Medford, N. J., with horse, wagon and camp equipage for a trip through the New Jersey pine barrens.

Medford is situated at the edge of the pine barren region. This part of the pine barrens lying in Burlington and Ocean counties is one of the wildest sections to be found in the eastern states. Cranberry raising is about the only industry and the few houses to be seen are to be found in the vicinity of the cranberry bogs, but they are indeed few and very far between. Charcoal burning was carried on in some places but this now seems to be mostly obsolete. A person lost in this section may wander about for days without meeting a trace of civilization. The roads are rarely used and are nothing more than mere sand trails through the woods. Before the advent of the seashore railroads these roads were the only means of reaching the coast and now the ruins of one time prosperous inns may be seen. In fact almost all the oysters used in Philadelphia were at one time hauled over the Chatsworth-Tuckerton road. We traveled this road for a number of miles, and when returning over it two days later our old wheel tracks were yet to be seen, nothing else having traversed it in the meantime.

From Medford our route lay nearly southeast through the wildest part of the barrens. Here are extensive forests of

pitch pines (*Pinus rigida*), interspersed here and there with cedar swamps. These swamps are an almost impenetrable tangle of white cedar, red maple, pepper bush, magnolia and holly. Here is to be found the greatest number of birds though they are never wanting among the pines, and although not plentiful as species they are numerous as individuals. The water of the streams is of a dark color, stained from the decaying vegetation.

Along the roadsides waved the feathery plumes of the turkey-beard, and the mountain and sheep laurels were rich with bloom. At the edges of the swamps grew the pitcher plant, and that other interesting insect eater, the little sun-dew, carpeted the ground in damp places.

After leaving Medford we passed through Bear swamp. Here the apologetic song of the Blue-winged Warbler greeted us and Scarlet Tanagers, Wood Thrushes, Tufted Titmice and Red-eyed Vireos were numerous. These species grew more and more scarce as we got deeper into the barrens.

In the pine woods the Pine Warbler was the most abundant species while Wood Pewees, Carolina Chickadees, Kingbirds, Crows, Turkey Vultures, Downy Woodpeckers and an occassional Flicker were to be seen. In the lower growths (mostly scrub oaks and huckle-berry bushes) Chewinks, Oven-birds and Priarie Warblers were abundant. We camped the first night at Speedwell. This oasis in the desert, consisting of a half dozen buildings (now all unoccupied) and a couple of fenced in fields, owes its origin to the existence of the iron ore which was, at one time, extracted from the nearby bog. Here we found Barn Swallows, Orchard Orioles, Indigobirds and Purple Martins. In the neighboring cedar swamp were White-eyed Vireos, Wood Thrushes, Carolina Chickadees and Maryland Yellow-throats.

From the cedars hung great festoons of the Usnea moss and here the Parula Warblers are to be found although we saw none. The Great Horned Owl also finds here a congenial home.

All evening long and in the early morning the Whip-poor-wills kept up such a din as to make sleep well nigh impossible,

and in spite of the earliness of the season the mosquitoes were rather troublesome.

On the second day we crossed what is known as the "Plains." As far as one can see is nothing but a stunted forest of miniature pitch pines and scrub oaks only three feet high. Here Brown Thrashers and Maryland Yellow-throats were abundant as also were Chewinks, Field Sparrows and Prairie Warblers. It is interesting to note that the Maryland Yellow-throat, that little bird which we always associate with the vicinity of water, should be so much at home here miles from the nearest water course. One actually wonders where these birds find enough water to drink. I had asked this question when my friend pointed to a dead leaf lying upon the ground filled with water from the last rain. Did this solve the problem?

It was on these "plains" that the Heath Hen, now extinct but for a few found upon the island of Martha's Vineyard, once abounded.

At the end of the second day we reached Staffords Forge, a little settlement some three miles north of West Creek. We had traveled twenty-two miles that day and had not seen a trace of civilization. We spent June second at Stafford's Forge. We were now within four miles of the coast marshes and here we met old friends in the Robin, Bluebird, Barn Swallow, Chimney Swift, Bob-white and Red-winged Blackbird, while Purple Martins and Whip-poor-wills were abundant.

Along the Westecunk Creek were large cranberry bogs. Here we saw several Green Herons and in the woods at the head of the bogs the Bald Eagle still nests.

The next two days were spent in the homeward journey arriving at Medford about noon of June fourth. A Ruffed Grouse being the only species seen that we had not previously listed.

We had practically crossed the state and felt well repaid for our eighty-four mile trip.

ADDITIONS AND ADDITIONAL DATA TO A PRELIMINARY LIST OF THE LAND BIRDS OF SOUTHEASTERN MICHIGAN.

BY BRADSHAW H. SWALES.

In the Bulletin of the Michigan Ornithological Club, Vol. IV., 1903. pp. 14-17, 35-40, Vol. V., pp. 37-43, I published a preliminary list of the land birds of Southeastern Michigan. Since the time of issuing the last installment (May, 1903) I am able to add three species to this list, namely: *Falco peregrinus anatum, Compsothlypis americana usneæ, and Geothlypis agilis.* I have also been able to verify by the taking of specimens, seven species: *Empidonax flaviventris, Helminthophila celata, Dendroica tigrina, Icteria virens, Wilsonia pusilla, and Cisothorus stellaris.* This raises the number of species that are now known to have actually been taken in this section (Land Birds) to 165. Of this number, four, *Meleagris gallopavo silvestris, Ectopistes migratorius, Ceophlœus pileatus,* and *Corvus corax principalis* are without doubt extinct.

ADDITIONS.

Falco peregrinus anatum.—Duck Hawk.

Two specimens taken, a female shot March 25, 1904, by A. B. Schroder on the outskirts of Detroit, (Blain, Bull. Mich., Ornith. Club, V, 54); a male taken October 6, 1904, on the Detroit river near Pt. Moulle, and sent to L. J. Eppinger, taxidermist, in whose studio I examined it. Some twenty years ago this species was given as occurring at the St. Claire Flats by Saunders and Morden, (Can. Sportsman and Nat., II, 183-7).

Compsothlypis americana usneæ.—Northern Parula Warbler.

As recorded by me in the Auk, 1905, 84, the first specimen of this species that was known to have been taken here was secured by J. Claire Wood, September 25, 1904. This bird

was sent to Dr. C. W. Richmond and returned labeled C. a. usneæ, not C. a. ramalinæ as stated by Mr. Wood in Auk, 1905, 212.

Until otherwise classified by competent authority the species should remain as recorded, usneæ. On May 7, 1905, P. A. Taverner and I met with a male in Bronnstown Township, Wayne County on the Huron river banks. I saw a late male October 14, in Greenfield Township. It occurs here without doubt in some numbers during the spring and fall migrations.

Geothlypis agilis.—Connecticut Warbler.

P. A. Taverner secured the first bird known to have been taken here on September 18, 1904, at Palmer Park, Greenfield Township, Wayne County,—a female. On October 6, 1904, in Ecorse Township, while collecting with J. C. Wood, he secured an immature bird (Auk, 1905, 217). The present year (1905) on May 22, Mr. Taverner obtained an adult male in Clay Township, St. Clair County. On May 14th we met with two on Pt. Pelee, Essex County, Ontario, and several during our September visit. I secured a female, October 8th, in Garfield Township. Evidently agilis is a regular migrant here both spring and fall in limited numbers.

ADDENDA.

13. *Buteo platypterus.*—Broad-winged Hawk.

To any statement in the former list, that this species undoubtedly breeds here, I can add the somewhat belated record of a nest, eggs and female taken by myself April 29, 1893, at Highland Park, Wayne County (Bull. Mich. O. Club, 1904, 69). I have no knowledge of any other breeding records for the section by local oologists, although the bird without doubt breeds here in limited numbers.

20. *Strix pratincola.*—American Barn Owl.

To the two prior records given, the following are all that are now available:

(1) October 8, 1898, one taken by Abraham Sheffield near Northville (Purdy, Auk, 1899, 77).

(2) A female taken in the marshes of the lower Detroit river, in the possession of Chas. Campion (Blain, Auk, 1902, 210).

(3) October 29, 1901. A male taken at Pt. Mouelle, Wayne Co. (Blain, Auk, 1902, 210).

(4) Sept. 18, 1904. A male taken near South Lyons, Oakland Co. (Blain, Bull. Mich. Ornith. Club, 1904, 91).

35. *Melanerpes carolinus.*—Red-bellied Woodpecker.

Jas. B. Purdy, the veteran ornithologist of Plymouth, writes me that when the timber was abundant at Plymouth this species was quite common during the entire fall, winter, and spring. But as the country has been deforested the bird is now very rare. On April 26, 1889, he discovered a pair nesting in a beech near Plymouth, the nest containing five eggs, which are in his collection. According to Jerome Trombley, a few formerly wintered in Monroe county, which is the next county south of Wayne. (Butler, Birds of Ind., 843). My experience with this species is that I have never either personally seen or examined a bird during the summer, or winter; and of late years, even during the migrations the bird has become very rare and constant search has failed to reveal but one or two individuals each season.

46. *Empidonax flaviventris.*—Yellow-bellied Flycatcher.

P. A. Taverner observed one bird May 7, 1904, in Grosse Pt. Tp., but owing to his recent arrival in Michigan, was unwilling to stand for the record until further data was secured. On May 23, 1905, he secured a male in Greenfield Tp., which I believe is the first bird of the species actually taken here. The present fall (August 27) in Farmington Tp., Oakland Co., we met with a female. Undoubtedly a not uncommon migrant, as we found it common on the Point Pelee, Ont., during September.

63. *Carpodacus purpureus.*—Purple Finch.

Unusually abundant during October, 1904, both in Wayne and Southern Genesee Counties. I met with it in numbers in each piece of woodland visited on October 23, near Atlas.

64. *Loxia curvirostra minor.*—American Crossbill.

To my former meager notes on this species I can add the following data: On November 22, 1903, Walter C. Wood met with a small flock on Grosse Isle, Wayne Co. I carefully searched the island for these birds on December 13th, 1903, but was unsuccessful. On November 16, 1903, Jas. B. Purdy

secured three at Plymouth. I heard of none during the past winter, 1904-1905.

65. *Loxia leucoptera.*—White-winged Crossbill.

See Auk, 1904, p. 281.

72. *Passerculus sandwichensis savanna.*—Savanna Sparrow.

As recorded by Taverner (Auk, 1905, 89) we found a small colony breeding in Clay Tp., southern St. Clair Co., June 18, 1904. We visited this colony at different times during the summer, as I had no prior knowledge of the breeding of this species in this section. During 1905, on June 10th, Mr. W. E. Saunders and I found the birds well distributed in the higher parts of the wet meadows bordering Lake St. Clair in Essex Co., Ontario, which is almost directly across the lake from the Clay Tp. region.

74. *Ammodramus henslowi.*—Henslow's Sparrow.

To my former notes in Auk, 1905, 83, I can add the following: During 1905, the first birds were noted April 30, in Clay Tp., St. Clair Co. On May 3d, Mr. Taverner heard one singing in Greenfield Tp., Wayne Co. On May 21 he located a small colony in southern St. Clair Co. in a different locality from that of last year. See J. C. Wood, Auk, 1905, 416. On June 10 Mr. W. E. Saunders and I found the species present in three separate localities on the Canada side of Lake St. Clair, in Essex Co., Ontario. Here are extensive tracts of wet grassy meadows, weed grown, on the higher portions of which *henslowi* is at home. In the limited amount of time at our disposal we were unable to locate any nests despite careful search by Mr. Saunders. The steady rain which fell throughout the day added greatly to our troubles. This sparrow evidently is well distributed in small colonies along both sides of Lake St. Clair, and also in a few suitable sections in Wayne Co.

73. *Coturniculus savannarum passerinus.*—Grasshopper Sparrow.

Careful search has revealed this sparrow in a number of localities in Wayne, Oakland, Genesee and St. Clair Counties. In 1903 the first were noted May 9th, in 1904, on May 14th, and in 1905, May 3d. To date I have found the species only

in small numbers—several pairs at most, and extremely local in its distribution.

84. *Melospiza lincolni.*—Lincoln's Sparrow.

This species appears to be a regular migrant here in some numbers, more abundant in fall. I first met with it on May 14, 1904, in Greenfield Tp., where Taverner secured a male. On May 21 another bird was secured. During the fall we found the species well represented on October 2d and 9th in Greenfield Tp., Wayne Co. These birds were in company of vast numbers of White-throated, Swamp, and Song Sparrows in an extensive stretch of mixed fields, and brushland thickly overgrown with dense growth of various weeds, and bushes. Owing to the constant flushing of the other sparrows it was extremely difficult to follow the Lincolns when found, as they were shy and hard to flush the second time. The present fall I met with the birds first on October 1st, and, despite careful search, neither Taverner or I could find any after October 5th, when I secured two birds.

85. *Melospiza georgiana.*—Swamp Sparrow.

During the last two years I have found this an abundant species from May 15th to October 16th. Much more so during the migrations. I have found breeding at the St. Clair Flats and in southern Genesee County. Is especially abundant in late September and early October, when large numbers are present intermingled with White-throats, and Song Sparrows.

86. *Passerella iliaca.*—Fox Sparrow.

Unusually well represented during 1904 and 1905, both spring and fall. In 1904 I met with the first birds on March 27th, and the last April 18th. On the latter date I found a flock of some forty birds in the deep woods at the upper end of Belle Isle, Detroit river, and heard the species in song during the migrations for the first time. Later in the day I found a male in almost full song near my home in Detroit. I saw the first fall migrants, October 1st, and they remained in some numbers throughout the month in all sections visited, one male on November 12th was the last bird noted. During the fall the birds were heard singing on several occasions. In 1905 the first birds were observed on March 25th, almost forty,

several in song. Last seen on April 8th. Fairly common the present fall from October 1st.

87. *Pipilo erythrophthalmus.*—Towhee.

Jas. R. Purdy writes me that he observed a female near Plymouth, January 29, 1905, which is the first winter record for the county that I am aware of. However, on November 24th, 1904, I saw a male in a secluded sheltered nook near Atlas, Genesee Co., that I believed intended wintering, but could not follow the matter up.

88. *Cardinalis cardinalis.*—Cardinal.

On September 25, 1904, Mr. Taverner and I met with a male, female, and at least two immatures in a tangled thicket in Clay Tp., southern St. Clair Co. The immature bird secured clearly indicated that the species had bred in the near vicinity. On November 20, 1904, we found a male near Trenton, Wayne Co. On May 6, 1905, we heard a male singing on the outskirts of the village of Flat Rock, Wayne Co., in the underbrush bordering the Huron river. Early the next morning we were fortunate enough to find him, and later in the day we saw another several miles down the river. Taverner and I found the species well represented on Point Pelee, Ontario, on the May, September, and late October visits.

98. *Stelgidopteryx serripennis.*—Rough-winged Swallow.

Observed on May 7, 1905, in some numbers on a trip down the Huron river between Flat Rock and Trenton, Wayne Co. Without doubt careful search will reveal this species in certain localities and in more numbers than is now known.

109. *Protonotaria citrea.*—Prothonotary Warbler.

I carelessly neglected to include a prior record of this species in my former data. A. B. Covert, and N. A. Wood, of Ann Arbor, found a pair breeding in a dense swamp in Lyons Tp., Oakland Co., securing the parents and eggs(which are now in the University of Michigan Museum. (Bull. Mich. Ornith. Club, 1903, p. 60.)

165. *Helminthophila celata.*—Orange-crowned Warbler.

On September 25, 1904, Mr. Taverner and I were working through a small woodland in Clay Tp., St. Clair Co., where Taverner secured a bird of this species in a somewhat obscure

plumage. I believe that no prior specimen has been taken here.

114. *Dendroica tigrina.*—Cape May Warbler.

I secured a fine adult male May 7, 1905, on the banks of the Huron river just over the Monroe county line, the river dividing Monroe from Wayne county.

130. *Seiurus noveboracensis.*—Water-Thrush.

I have no authentic data for this species here except as a migrant. I am fully aware of several records extant of the breeding of the species here, but in the case of several of these records that I have examined the birds proved, as I anticipated, to be S. motacilla, which is the common Water-Thrush here. The two species are generally not separated by local observers.

136. *Wilsonia pusilla.*—Wilson's Warbler.

P. A. Taverner secured a male in Greenfield Tp., Wayne Co., on May 20, 1905, the first that has actually been taken here. It should, however, occur during the migrations in some numbers, as we found it common at Pt. Pelee, Ont., during September.

145. *Cistothorus stellaris.*—Short-billed Marsh Wren.

To my record in Auk, 1905, p. 88, I can add no new data for this section despite careful search in a number of favorable localities by Mr. Taverner, and myself.

149. *Bæolophus bicolor.*—Tufted Titmouse.

I have long been under the impression that an occasional pair remained here to breed, but was not able to verify this. It is found here only in certain sections, as Belle Isle, where it is more abundant than in any other locality known to me. I firmly believe that the species breeds in limited numbers on the island, although I personally have not observed the birds there later than the middle of May. On June 24, 1905, Mr. Taverner heard one whistling in a woods just north of Detroit, and on August 6th we heard the bird in the same place. After considerable work Taverner secured it. Another was seen August 27th. This pair, without doubt, bred in this locality.

SOME BREEDING RECORDS FROM EAST POINT, GEORGIA.

BY WILLIAM J. MILLS.

The notes upon which the following records are based were made during the year 1903. So little has been published regarding the time of the breeding, except in a general way, that specific records of this sort are welcome. They, like Mr. Smith's migration records, come from a locality farther south than regions usually included in general statements of the times of breeding, and therefore become doubly interesting.—Editor.

Mimus polyglottos.—Mockingbird. April 24, found building a nest, which was later deserted.

Bæolophus bicolor.—Tufted Titmouse. April 26, nest containing seven fresh eggs, in the hollow trunk of an apple tree; entrance four feet from the ground, nest two feet down the hollow.

Colaptes auratus.—Flicker. April 26, nest containing six fresh eggs, in a hollow apple tree.

Megascops asio.—Screech Owl. April 26, nest containing three young, one-third grown, in an old oak top. Female in the gray phase.

Parus carolinensis.—Carolina Chickadee. May 3, nest containing six young, about ready to leave the nest. May 7, this brood is gone. There is a note of another brood of four successfully reared, with no date given.

Spizella socialis.—Chipping Sparrow. April 30, nest in the process of building in a cedar bush. First egg, May 2. A violent wind on the 3d tipped the nest over, and the birds deserted. August 9, a brood of four young, apparently about a week old.

Toxostoma rufum.—Brown Thrasher. Nest containing an egg. A week later this nest contained a mass of broken egg shells. May 17, nest containing four eggs, low down in thicket, on a pole, well concealed by a rank growth of thorns, briars, etc. May 24, still there. May 31, eggs gone.

Dendroica discolor.—Prairie Warbler. May 3, nest in building in a pine sapling, four and a half feet from the ground. First egg, May 10; later deserted. May 9, another nest three feet from the ground in a wild plum tree, with four fresh eggs. May 10, another nest in a briar patch; destroyed by a dog.

Hylocichla mustelina.—Wood Thrush. May 7, two nests containing four eggs each, well incubated. The young left the nests in safety.

Spizella pusilla.—Field Sparrow. May 4, nest containing four fresh eggs. May 5, nest in an orchard; it was soon deserted. May 17, a nest within ten feet of the deserted one, containing four eggs in all. Of the nine remaining one was not systematically studied, and the other eight were sooner or later overtaken by disaster. Only one bird out of nine nests (36 eggs) lived long enough to fly.

Galeoscoptes carolinensis.—Catbird. May 7, nest in building. First egg May 17; four eggs May 21; eggs gone May 31.

Peucæa æstivalis bachmanni.—Bachmann's Sparrow. May 9, nest containing four young two days old. May 10, young dead in the nest. This nest was in an old field partly grown up with pines, wild cherry, sumac, and briars. Nest partly embedded in the ground, composed of grasses arched over; entrance from the west.

Icteria virens.—Yellow-breasted Chat. May 13, nest with one egg. The fourth egg was laid on the 16th.

Piranga rubra.—Summer Tanager. May 21, nest in building on a horizontal branch of a white oak tree, eighteen feet from the ground. Four eggs, slightly incubated on the 31st.

Vireo flavifrons.—Yellow-throated Vireo. May 24, nest forty feet up in an oak tree at the door of my workshop. Young left in safety.

Cyanospiza cyanea.—Indigo Bunting. May 24, nest with four eggs, two feet up in a small oak shrub. The young left in safety.

Myiarchus crinitus.—Crested Flycatcher. June 11, nest with five young and an egg, in the hollow trunk of an apple tree in Glander's swamp.

Coccyzus americanus.—Yellow-billed Cuckoo. July 26, nest nine feet up in an oak, contained two badly incubated eggs.

A PRELIMINARY LIST OF THE BIRDS OF SUMMIT, NEW JERSEY.

BY H. H. HANN

Summit is just within the hilly portion of New Jersey and lies in the Alleghanian zone but is slightly lapped by the Carolinian zone as well. This list is made up from the notes of the Messrs H. F. Merriam, J. C. Callender and myself and were taken principally in three places i. e. the Great Swamp, along the Passaic river extending from Gillette to Hanover and Murray Hill. In a few instances we have taken the notes of friends and in such cases our authority will be quoted. I have arranged the list in four divisions keeping each division in A. O. U. check list order; i. e. Residents, Winter Visitors, Migrants and Summer Visitors and the combination of the Residents and Summer visitors gives us the breeders.

Residents.

Colinus virginianus.—Bob-white. Rare, except where the Chatham Game Club have stocked them.

Bonasa umbellus.—Ruffed Grouse. Common but decreasing in numbers.

Strix pratincola.—American Barn Owl. Rare. Mr. Dickinson has two which he raised. He found the nest by the river below Chatham.

Asio wilsonianus.—American Long-eared Owl. Uncommon. Only one nest found by us.

Syrnium varium.—Barred Owl. Uncommon. We found one occupying a nest, from which we took a set of Red-shouldered Hawk's eggs the spring before.

Megascops asio.—Screech Owl. Common.

Bubo virginianus.—Great Horned Owl. Rare. Occasionally one is found down the Passaic near Hanover. Mr. D. B. Dickinson had one brought to him from Hanover to mount that contained an egg.

Dryobates villosus.—Hairy Woodpecker. Uncommon greater part of year except during winter, when common.

Dryobates pubescens medianus.—Downy Woodpecker. Common.

Melanerpes erythrocephalus.—Red-headed Woodpecker. Uncommon. Only found in two places,—the Great Swamp and down the river near Hanover.

Cyanocitta cristata.—Blue Jay. Abundant.

Corvus brachyrhynchos.—American Crow. Abundant.

Astragalinus tristis.—American Goldfinch. Abundant.

Passer domesticus.—English Sparrow. Abundant.

Melospiza cinerea melodia.—Song Sparrow. Abundant except during the coldest part of the winter, but can always be found.

Cardinalis cardinalis.—Cardinal. Rare.

Ampelis cedrorum.—Cedar Waxwing. Common, but more so during the summer.

Sitta carolinensis.—White-breasted Nuthatch. Common except during the breeding season, when it is very hard to find, as it keeps so quiet.

Bæolophus bicolor.—Tufted Titmouse. Common.

Parus atricapillus.—Chickadee. Common.

Winter Visitors.

Larus argentatus.—Herring Gull. Uncommon in the spring down the Passaic near Chatham. One seen last winter flying over the Great Swamp.

Asio accipitrinus.—Short-eared Owl. Rare.

Cryptoglaux acadica.—Saw-whet Owl. Rare.

Otocoris alpestris.—Horned Lark. Very rare. Only one ever found. Shot last winter in Great Swamp near Myersville.

Carpodacus purpureus.—Purple Finch. Common during migrations, and a few stay all winter.

Loxia curvirostra minor.—American Crossbill. Some winters common and others not seen at all.

Loxia leucoptera.—White-winged Crossbill. Very rare.

Acanthis linaria.—Redpoll. Common some winters and ofter not seen during others.

Passerina nivalis.—Snowflake. Very rare. Last winter we had them with us for ten days and they were common, but this is the only time we have seen them.

Spizella monticola.—Tree Sparrow. Common.

Junco hyemalis.—Slate-colored Junco. Abundant.

Lanius borealis.—Northern Shrike. Rare.

Olbiorchilus hiemalis.—Winter Wren. Common during migrations and a few stay all winter.

Certhia familiaris americana.—Brown Creeper. Common migrant. A few stay all winter. Mr. Callender saw a pair of old birds with five young fully able to fly, July 23, 1905.

Regulus satrapa.—Golden-crowned Kinglet. Common, but more so during migrations.

Migrants.

Colymbus holbœllii.—Holbœll's Grebe. Rare. Several seen and a few shot down the Passaic.

Podilymbus podiceps.—Pied-billed Grebe. Uncommon.

Anas boschas.—Mallard. Uncommon.

Anas obscura.—Black Duck. Common.

Nettion carolinensis.—Green-winged Teal. Uncommon.

Querquedula discors.—Blue-winged Teal. Uncommon.

Dafila acuta—Pintail. Uncommon.

Branta canadensis.—Canada Goose. Common.

Ardea herodias.—Great Blue Heron. Common.

Gallingo delicata.—Wilson Snipe. Common.

Buteo borealis.—Red-tailed Hawk. Common. Occasionally one is seen during the winter.

Pandion haliætus carolinensis.—American Osprey. Uncommon down the Passaic.

Sphyrapicus varius.—Yellow-bellied Sapsucker.—Uncommon.

Chordeiles virginianus.—Nighthawk. Common.

Nuttallornis borealis.—Olive-sided Flycatcher. Rare.

Euphagus carolinus.—Rusty Blackbird. Common.

Spinus pinus.—Pine Siskin. Common.

Poocætes gramineus.—Vesper Sparrow. Common..

Passerculus sandwichensis savanna.—Savanna Sparrow. Uncommon.

Zonotrichia leucophrys.—White-crowned Sparrow. Rare.

Zonotrichia albicollis.—White-thrcated Sparrow. Common.

Passerella iliaca.—Fox Sparrow. Common.

Iridoprocne bicolor.—Tree Swallow. Common.

Vireo solitarius.—Blue-headed Vireo. Common.

Compsothlypis americana.—Parula Warbler. Common.

Dendroica cærulescens.—Black-throated Blue Warbler. Common.

Dendroica coronata.—Myrtle Warbler. Common.

Dendroica maculosa.—Magnolia Warbler. Common.

Dendroica striata.—Black-poll Warbler. Common.

Dendroica blackburniæ—Blackburnian Warbler. Uncommon in comparison with the other warblers.

Dendroica virens.—Black-thrcated Green Warbler. Uncommon.

Dendroica palmarum hypochrysea.—Yellow Palm Warbler. Abundant.

Seiurus noveboracensis.—Water-Thrush. Uncommon.

Seiurus motacilla.—Louisiana Water-Thrush. Rare.

Wilsonia pusilla.—Wilson Warbler. Common.

Sitta canadensis.—Red-breasted Nuthatch. Rare.

Regulus calendula.—Ruby-crowned Kinglet. Common.

Hylocichla ustulata swainsonii.—Olive-backed Thrush. Rather uncommon.

Hylocichla guttata pallasii.—Hermit Thrush. Common.

Summer Visitors.

Aix sponsa.—Wood Duck. Rare in the breeding season, when a pair are usually found in the vicinity of Hanover. Common during migrations.

Botaurus lentiginosus.—American Bittern. Common, but nests are very rare.

Butorides virescens.—Green Heron. Common. Found nesting in small colonies of from two to eight or ten pairs.

Nycticorax nycticorax nævius.—Black-crowned Night Heron. Rare. A few still breed near Hanover, where there was a large colony at one time.

Rallus elegans.—King Rail. Rare. A Mr. Littlejohn found a nest down the river in 1895.

Rallus virginianus.—Virginia Rail. Rare. Mr. Littlejohn also found this breeding in the spring of 1895 down the Passaic river.

Philohela minor.—American Woodcock. Common during migrations. A few breed here.

Actitis macularia.—Spotted Sandpiper. Common during migrations. A few breed here.

Zenaidura macroura.—Mourning Dove. Uncommon. Were common eight or ten years ago.

Circus hudsonius.—Marsh Hawk. Common.

Accipter velox.—Sharp-shinned Hawk. Rare.

Buteo lineatus.—Red-shouldered Hawk. Common.

Buteo platypterus.—Broad-winged Hawk. Rare.

Falco sparverius.—American Sparrow Hawk. Common.

Coccyzus americanus.—Yellow-billed Cuckoo. Common.

Coccyzus erythrophthalmus.—Black-billed Cuckoo. Common.

Ceryle alcyon.—Belted Kingfisher.—Common.

Colaptes auratus luteus.—Northern Flicker. Common.

Antrostomus vociferus.—Whippoorwill. Bred some years ago, but not lately. Common migrant.

Chætura pelagica.—Chimney Swift. Abundant.

Trochilus colubris.—Ruby-throated Hummingbird. Uncommon.

Tyrannus tyrannus.—Kingbird. Common.

Myiarchus crinitus.—Crested Flycatcher. Common.

Sayornis phœbe.—Phœbe. Common.

Contopus virens.—Wood Pewee. Common.

Empidonax traillii alnorum.—Alder Flycatcher. Mr. L. F. Miller says it is common in Great Swamp, near Myersville.

Empidonax minimus.—Least Flycatcher. Common.

Sturnus vulgaris.—Starling. Rare down river.

Dolichonyx oryzivorus.—Bobolink. Common.

Molothrus ater.—Cowbird. Common.

Agelaius phœniceus.—Red-winged Blackbird. Common.

Sturnella magna.—Meadowlark. Common.

Icterus spurius.—Orchard Oriole. Uncommon.

Icterus galbula.—Baltimore Oriole. Common.

Quiscalus quiscula.—Purple Grackle. Common.

Coturniculus savannarum passerinus.—Grasshopper Sparrow. Rare..

Spizella socialis.—Chipping Sparrow. Abundant.

Spizella pusilla.—Field Sparrow. Common.

Melospiza georgiana.—Swamp Sparrow. Common locally.

Pipilo erythropthalmus.—Towhee. Common.

Zamelodia ludoviciana.—Rose-breasted Grosbeak. Common .

Cyanospiza cyanea.—Indigo Bunting. Common.

Pianga erythromelas.—Scarlet Tanager. Common.

Progne subis.—Purple Martin. Very rare breeder. Common migrant.

Petrochelidon lunifrons.—Cliff Swallow. Were two small colonies eleven years ago. Common migrant.

Hirundo erythrogastra.—Barn Swallow. Common.

Riparia riparia.—Bank Swallow. Uncommon breeder. Common migrant.

Stelgidopteryx serripennis.—Rough-winged Swallow. Common migrant. Only one known case of their breeding here.

Vireo olivaceus.—Red-eyed Vireo. Common.

Vireo gilvus.—Warbling Vireo. Rare. Only one nest.

Vireo flavifrons.—Yellow-throated Vireo. Uncommon.

Vireo noveboracensis.—White-eyed Vireo. Common.

Mniotilta varia.—Black and White Warbler. Common.

Helmitheros vermivorus.—Worm-eating Warbler. Very rare. We have found only one nest.

Helmithophila pinus.—Blue-winged Warbler. Common.

Dendroica æstiva.—Yellow Warbler. Common.

Dendroica pensylvanica.—Chestnut-sided Warbler. Common.

Seiurus aurocapillus.—Oven-bird. Abundant.

Geothlypis trichas brachidactyla.—Northern Yellow-throat. Common.

Icteria virens—Yellow-breasted Chat. Common.

Setophaga ruticilla.—American Redstart. Common migrant. A few stay to breed.

Galeoscoptes carolinensis.—Catbird. Abundant.

Toxostoma rufus.—Brown Thrasher. Common.

Thryothorus ludovicianus.—Carolina Wren. Very rare.

Troglodytes ædon.—House Wren. Common.

Cistothorus stellaris.—Short-billed Marsh Wren. Uncommon. Found in Great Swamp and down the river below Chatham.

Tematodytes palustris.—Long-billed Marsh Wren. Common locally.

Hylocichla mustelina.—Wood-Thrush. Abundant.

Hyocichla fuscescens.—Wilson Thrush. Common.

Merula migratoria.—Robin. Abundant.
Sialia sialis.—Bluebird. Abundant.

We have several species that we expect to be able to add to this list but at present do not feel that we have enough data.

Our list as above gives us 20 Residents; 15 Winter Visitors; 42 Migrants and 72 Summer Visitors giving us 92 breeding species and 149 species all told.

ORNITHOLOGY A SCIENCE.

P. A. TAVERNER.

A short time ago I had the question put to me by an Ornithologist—"What is the use?" "What is it all for?" and the statement was advanced that Ornithology is not a science but merely an amusement. This is not the only time this query has reached me. I have met it many times before in various forms, and perhaps a few thoughts that it has raised may be of value to others faced with the same problem.

Of course economic ornithology has a practical purpose, and affects our welfare directly. The food of birds has a direct influence upon our pockets, and is a practical study. Pure science, however, is in no sense practical. As soon as its discoveries become practically applied it ceases to be science in the strict use of the term. Franklin's experiment with the kite was scientific, in as much as he proved the identity of lightning, and electricity. The making and applying of lightning rods is not scientific but electro-mechanical, though founded upon scientific principals. Science then is the study of the laws of nature, not the practical application of them.

Man is an inquiring being. The lower animals also are inquisitive, but with this difference—they ask, "What is it?" "Is it good to eat or not?" "Harmful or friendly?" This answered they are satisfied. Man, on the other hand, no sooner settles these questions than he immediately asks, "Why or how is it?" And this is the riddle of the Sphinx, that all the world is trying to answer. What are we? Where did we come from and whither are we going? The Church-man points to the Scriptures for an answer, and that for ages sufficed. This gives a vague starting point and an equally vague objection, but with no details between; and it is these intermediate details that science is attempting to fill in. Nor can it be held to be disrespectful or antagonistic to religion or the Deity to suppose that in going from one point to another we must pass through intermediate space, and to speculate thereupon. This speculation is the domain of science and the

"Riddle of Existence"—the point on every side. The astronomer heaves his glass across the heavens. The microscopist cross-sections and slices, the chemist distils, and condenses; the geologist digs and maps, and the biologist classifies and notes. They are all working on the one problem in their various branches—"How and why is the Creation?" This is science and fundamentally there is but one science, though there are many branches that merge into each other in gradually fading lines. One of these lines is Biology, treating of life in general, which has a branch of Zoology which is again divided up into many others, birds or Ornithology forming one of them.

Pure science is speculation, but correct results cannot be arrived at without a close study of facts, and a collection of data. Speculation, to be scientific, must be founded upon fact or else chaos reigns and we are farther away from our goal than ever. Here we are collecting records, data, and noting habits and mapping out distributions. Should we go no farther than this we have an array of facts interesting in a way because of their peculiarities, but of no more value than a collection of postage stamps or tin tags. When, however, we compare these with each other, classify them and deduce laws from them, their true value shows itself.

The mass of such material requisite for even a superficial understanding of the laws and conditions governing bird life is, however, too enormous to be covered by any one man; neither are all men fitted for all the branches of this work. The great mass of data gathering must fall upon the lower rank and file, leaving the greater intellects free of the drudgery. And so we study Ornithology, that is we note and study birds in the field and closet—their habits, their structure and the conditions favorable or adverse, and every fact we gather and carefully file away where greater men can find them. It is interesting of itself and who knows what use may be made of the most insignificant fact thus gathered. Ornithology thus followed is a branch of the science; and the hope and aim of our work is that some day it may fill a little gap in our knowledge, and help us in an infinitesmal way to reconstruct the scenes of the past or formulate the prophecy of the future.

PRIORITY.

BY P. A. TAVERNER.

We live in hopes, in fact we have lived in hopes for these many years past, that, some day all the precedents will have been exhausted and we will have achieved that millenium when our nomenclature will be stable, when we can write a Latin name with some reasonable hope that the student who delves not in archeological terminology will be able to understand what species we are speaking about.

Theoretically, the supply of precedents cannot be inexhaustible; we therefore hail each, and every change with the comforting thought: "One name nearer the end."

There comes a time, however, when patience ceases to be a virtue. When we see old idols, the friends of our childhood, ruthlessly dashed to the ground—when old Corvus americanus is relegated to the dust heap of synonomy after years of fond association, when Bubo is threatened with like extinction,—then we wonder what this sacred thing Priority is. Whether nomenclature is really a "Means to an end" as Principle I say, or whether it exists for the glory of dead, long-forgotten ornithologists—often of questionable attainments—who, by a streak of luck, happened to tack the first name upon a bird of which he, perhaps, saw merely a fragment, and knew as little of its place in the living world as we do of mushrooms on Mars.

The scientific nomenclature exists avowedly for stability alone. Let him who doubts this peruse the lists of synonomy that adorn our manuals. It is amusing then to turn to the vernacular names which have no scientific standing, and are subject to every whim of the passing speaker and scribbler. It seems like a travesty upon our system of taxonomy that the vulgar names that are discarded by mature scientists as too evanesent for recognition have proved stable in so high a degree, while the stem of Latin and Greek derivatives chosen

for that same quality of stability have fluctuated like the tides without their regularity. They have been bandied about by the breath of every dusty book worm that has happened upon an author who happened to have put a name in the first chapter instead of the second of his miss-gotten book. Technicality after technicality has been made use of, often directly against the evident wishes of the original author, and to-day one hesitates to use a name for fear that before the paper passes through the printer's hands it will be antiquated in its phraseology.

In conclusion let us ask, Has not the law of Priority been reduced to a fetish? and is a name really applied to a species for convenience in handling or to the end that a man's name may go down to posterity attached in an abbreviated form to an already too long bi- or trinomial? In brief, is the scientist made for the name or the name for the scientist? Which wags, the tail or the dog?

THREE HITHERTO UNKNOWN PELICAN RECORDS FOR OHIO.

While in Port Clinton, Ohio, in July, 1903, I found out that a jeweler by the name of Dewit had shot a Pelican the preceding fall on Lake Erie. The specimen was taken along to New York City by a friend of his and mounted in that city.

About twenty years ago a Pelican was shot 1½ miles south of Tiffin on Sandusky River and stood mounted for years in a local cigar store. In November, 1901, another Pelican was shot by some local hunters in the Bloomville marshes in Seneca Co. I do not know what became of the specimen. They were all Pelicanus erythrorhynchos.

AN ADDITION TO THE BIRDS OF MIDDLE SOUTHERN OHIO.

The fact that Dr. Jones and Rev. Dawson found the Black Terns along the Ohio River in August, 1902, and also

that a bird answering this description was shot in the fall of 1904 near Waverly, O., and so reported to me by Attorney J. A. Douglass, a careful observer of birds in that region, make it advisable to add this bird to my list of Birds of Middle Southern Ohio at least ex hypothesi.

W. F. Henninger.

SPECIAL INVESTIGATION FOR 1906.

Believing that the time has come when we can venture upon a line of investigation not hitherto attempted seriously, your President announces that for the coming year, and longer if necessary to accomplish the ends sought, our line of special investigation will be the breeding habits of some of our birds. This announcement is made at this time and in this general way in preparation for a fuller announcement later, and in preparation for the work of the coming year which we may not have definitely planned yet. It is hoped that every reader of this notice will definitely plan to give as much time as possible to the study of all phases of the breading of our birds, or as many phases as he or she may be able to, in the coming year. Schedules will be mailed to all who are willing to do even a little toward making a final report upon this work valuable. With everybody contributing a little a great work will be done. If you do not receive one of these schedules before the middle of January, 1906, let the lack be known. For a hint concerning what information is desired consult Bulletin No. 51, page 61.

THE WILSON BULLETIN.

A Quarterly Magazine Devoted to the Study of Living Birds. Official Organ of the Wilson Ornithological Club.

Edited by LYNDS JONES.

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EDITORIAL.

A complete index for the current volume will be mailed with the March number for 1906, together with an "Errata". It has not been possible to prepare the copy for the Index to accompany the present number.

As a slight departure from census taking, the editor suggests that a "Winter List" of the birds be kept for the months of December, January, and February, up to February 20, and such lists, accompanied with a statement of the numbers of individuals of each species seen, be sent to the editor immediately after the 20th, so that they may appear in the March number. Such lists should prove interesting and valuable for comparison of localities, particularly if the average depth of snow, and the percentage of time during which the ground is covered accompanies the list.

We are pleased to be able to announce that Mr. Frank M. Chapman's book upon the Warblers is progressing satisfactorily, and that ere long we shall be able to make it our constant companion. It will surely greatly simplify the study of this difficult group of birds.

In the West two bird books of great importance are in preparation. The more pretentious one is a two volume popular scientific book upon the Birds of Washington, by Rev. William Leon Dawson, now of Seattle. This book will follow the lines of the author's Ohio book, but will surpass even that excellent work in every way. Advance copies of photographs from life indicate that

this work will be profusely illustrated with photographs of the highest rank.

The other work is being prepared by Rev. P. B. Peabody, now of Newcastle, Wyoming, upon the nesting of our birds. This book promises to greatly advance our knowledge of the birds along these lines, where the author is well known to be especially strong.

ELECTION OF NEW MEMBERS.

The following persons are proposed for active membership: Mr. L. N. Goodenough, Girdly, Pa.; Rev. P. B. Peabody, Newcastle, Wyo.

Emlen Wood, Devon, Chester County, Pa., is proposed for Associate membership.

GENERAL NOTES.

EXTRACTS FROM MY NOTE BOOK—1905.

February 28—Made a survey on Private Cairns 120 and 570, Grosse Pointe Townships. Day Cloudy with a very strong northwest wind and temperature 32°. Little snow in center of fields, but four feet deep near fences. An immense flock of Snowflakes in sight all day; was steadily increased by new arrivals. These came across Lake St. Clair, flying directly into the wind, and not more than five feet above the ice. There was plenty of room for them to pass between the trees along the shore, but none were seen to do so. They rose above the tree tops and settled to about the former level on the other side, but did not pause until they joined the large flock two miles inland. American Pipits were also unusually numerous, but not in evidence until you walked among them. The first and largest flocks consisted of about fifty individuals. They disliked the strong wind and it was amusing to watch them creep along the sides of furrows and other sheltered places. A rather deep wagon rut was lined with them. A single bird and several bunches of 4 to 8 were flushed later.

March 26—Day cloudy with light sprinkling of rain at times. Temperature 46° at 9 p. m. Went out to large woods on P. C. 317, Dearborn Township. Saw a pair of Hermit Thrushes. One of the eight Towhees noted was a female.

April 2—Day windy and clear. Average temperature 40°. Tramped over a portion of Monguagon and Brownstown Townships. Large flock of Purple Finches in small open woods. None seen elsewhere.

April 16—While searching the bushlands to-day for woodcock

nests I found two of the robin containing four eggs each. Rather early considering the backward season. Snow fell so thick at times that nothing could be seen at fifty yards. Average temperature 34°.

April 30—Went out for warblers to-day and secured seven species, those a trifle early being Black and White, Chestnut-sided and Tennessee.

May 2—First Nighthawk to-day.

May 4—My brother found a Prairie Horned Lark's nest (in the city of Wyandotte) to-day containing five eggs. An unusually large set, three or four being the common number.

June 21—Saw a female Lesser Scaup Duck to-day and yesterday in the marsh bordering the Detroit River in River Rouge Village. Was very tame. Never before observed by me in summer.

July 3—Towards evening to-day I saw a bird in the chestnut tree in front of the house which, from general size and shape, I took to be a Yellow-throated Vireo. Some peculiarity of motion soon riveted my attention; then I saw the white eye-ring and dashed into the house for the field glass. In the meantime the bird had very kindly come down into the lower branches. Yes, it was a female Connecticut Warbler. Now I am wondering whether she was a late spring or early fall migrant—probably the latter. During the regular migration I saw my first specimen, a female, on May 9, and last, a male, on May 21—the rule reversed.

J. CLAIRE WOOD.

Wayne County, Michigan.

BIRD MIGRATION AT KIRKWOOD, GEORGIA.

BY ROBERT WINDSOR SMITH.

The following records, made during the month of April, 1900, within a radius of three miles from Kirkwood station, DeKalb county, are worthy of permanent preservation. The dates given are those upon which the species enumerated under them were first seen. These records, which represent a great amount of careful and persistent work on the part of Mr. Smith, furnish an excellent basis for comparison with regions farther to the north.—[Editor.]

April 1, 6 a. m., temperature 32°. Thin coating of ice in the horse trough. Peach and plum blooms well out. Pears just showing the white in the bud. Forest trees showing green in the buds.

April 3, 72°. Wood Pewee.

April 4, 56°. Myrtle Warbler.

April 10, 60°. Yellow Warbler, Black and White Warbler, Sycamore Warbler, Kentucky Warbler, Hooded Warbler, Indigo Bunting, Summer Tanager, Red-eyed Vireo, White-eyed Vireo, Louisiana Water-Thrush, Maryland Yellow-throat, Wood Thrush.

April 12, 44°. Kingbird.

April 13, 34°. Light frost.

April 15, 68°. Chimney Swift.

April 17, 64°. Crested Flycatcher, Cliff Swallow, Robins and Meadowlarks disappeared.

April 18, 62°. Parula Warbler, Catbird.

April 19, 60°. Whippoorwill (female), Yellow-breasted Chat, Ruby-throated Hummingbird.

April 20, 70°. Magnolia Warbler, American Redstart, Yellow-bellied Sapsucker.

April 21, 74°. Blue Grosbeak, Scarlet Tanager, Yellow-throated Vireo, Myrtle Warbler, Cape May Warbler, Ruby-crowned Kinglet (the only bird seen this season).

April 22, 64° Orchard Oriole, Nighthawk.

April 24, 68°. Black-poll Warbler, Chestnut-sided Warbler, Rose-breasted Grosbeak (rare and irregular).

April 28, 82°. Palm Warbler, Yellow-billed Cuckoo, Bachmann's Sparrow.

April 30, 76°. Chuck-will's widow (rare).

BIRD CASUALITIES.

BY P. A. TAVERNER.

The broken leg described in the October Auk (A Broken Pigeon's Leg that Healed Itself. Page 412) suggests a Tennessee Warbler that was taken here this fall by B. H. Swales. The bird in question, when shot, had a fragment of a small twig projecting from its forehead. On dissection it was found that the end of the twig was imbedded in a cavity in the skull between the eyes and just beyond the base of the bill. The bird appeared to be healthy, and there was no inflammation in the injured parts. The twig was firmly held in the position where it had been driven, and projected from the skull nearly an eighth of an inch.

I recall another bird, this time a Ruffed Grouse, taken by myself in Muskoka, Ontario, in the fall of 1896. This was a very similar case, but the twig had penetrated between the femur and the body, and was between two and three inches long. Almost half its length projected into the body and it was covered with a waxy deposit that smoothed all its unevenness and so permitted free play of the thigh along it. There was no inflammation, and the bird seemed to be in good health at the time it was killed, but its worn plumage bespoke hard times but shortly passed. The exposed part of the twig was worn smooth and polished by friction with surrounding objects.

In both these cases the twigs pointed forward, and it is evident that the injuries were sustained by flying into branches of trees. Both birds were birds of the year.

An unusual number of cripples were found this year among the waders, a large percentage of which had broken legs more or less healed. None, however, had splints or bandages other than could be accounted for by the usual cementing powers of blood.

At Pearl Beach, St. Clair county, a Coot met an untimely death by flying into a barbed wire fence and getting the strong tendons of the wing twisted about a barb. The bird had evidently hung and struggled severely until death put an end to its misery.

Detroit, Mich.

A Fourth Record of the Barn Owl for Seneca Co.

In the January number of the Auk, 1903, Volume XX, page 67, I recorded three specimens of this species for Seneca County. To these I am now able to add a fourth, a female shot two miles north of Tiffin, which I mounted for a farmer. The time of the year, August 12, 1905, makes it appear probable that this species may occasionally breed here. W. F. HEMINGWAY.

NOTICES OF RECENT LITERATURE.

Birds from Mount Kilimanjaro. By Harry C. Oberholser. From the Proceedings of the U. S. National Museum, Vol. XXVIII, pages 823-936. No. 1411. 1905.

This paper is the result of a study of the collection of Dr. W. L. Abbott consisting of 684 specimens which represent 256 species and subspecies belonging to 59 families. Several new genera, species and subspecies are here described, and each species is accompanied with copious notes. L. J.

I. Birds from the Islands of Romblon, Sibuyan, and Cresta de Gallo.

II. Further Notes on Birds from Ticao, Cuyo, Culion, Calayan, Lubang, and Luzon.

By Richard McGregor. (Bureau of Government Laboratories).

These two papers (bound together) bring the excellent work of Mr. McGregor among our far eastern islands down to date. Four new species are described. Eleven good half-tone plates add to the value of the papers. L. J.

Birds known to Eat the Boll Weevil. By Vernon Bailey.

This is a report of the Biological Survey, in which it is shown that eleven species of birds are known to eat this destructive insect. It is significantly remarked by the author that the nongame birds, which are protected by the law, are ruthlessly slaughtered, in Texas. Let the campaign of education concerning the birds go steadily on. L. J.

The Rob-white and Other Quails of the United States in their Economic Relations. By Sylvester D. Judd.

This excellent paper upon the life histories of the quails is accompanied by a colored plate of Bob-white, and an engraving of Gambel Quail, both by Louis Agassiz Fuertes. Dr. Judd makes out a clear case for the whole quail group, and clearly shows that from every standpoint the birds should be encouraged to increase. L. J.

Special Report on the Decrease of Certain Birds, and its Causes, with Suggestions for Bird Protection. By Edward Howe Forebush. Prepared under the direction of the Massachusetts State Board of Agriculture.

In this excellent paper Mr. Forebush carefully reviews all the possible causes for decrease of birds in Massachusetts, showing that man is the most responible, and points out ways and means by which the destruction may be checked, if not make an increase possible. L. J.

Birds of the vicinity of the University of Indiana. By W. L. McAtee. September, 1905. From the Proceedings of the Indiana Academy of Sciences, pages 65 to 202, including half-tones of 32 nests with eggs.

This paper treats of 225 species of birds, which is 70 per cent. of all of the birds found in the state of Indiana. When it is known that the territory over which these 225 species has been found is but ten miles in diameter, with the city of Bloomington as a center, it is a remarkably large list, and speaks well for the careful study given to the bird fauna of this region. Migration tables for each species are given, most of them covering several years. One can not avoid noting the great disparity between the spring and fall records, which seems to be common to most migration records. Future work on the migrations should seek to correct this disparity. Copious notes upon the breeding of the summer birds add materially to the value of the paper. The paper does not pose as one containing only new things, but contains many references to former publications. It is much more than a local faunal list, and should prove valuable to students of birds everywhere, but particularly so to those residing in that part of Indiana. L. J.

The Horned Larks and their Relation to Agriculture. By W. L. McAtee. Bulletin No. 23, the Biological Survey, U. S. Department of Agriculture, 37 pages, with two plates and several text cuts.

This paper brings into prominence the fact that this group of birds is wholly beneficial to agriculture. The curious fact is brought out that the California form Otocoris alpestris actia, eats 40.0 per cent. of grain, whereas all of the other forms eat but 12.2 of grain. But the California birds are not therefore harmful be-

cause the individuals are few in number and the greater portion of the grain is waste. L. J.

SPECIAL PAPERS RECEIVED.

Twenty-fourth Annual Report, Cincinnati Museum Association. 1904.

Papers from the Proceedings of the Biological Society of Washington. By Harry C. Oberholser.

Description of a New Vireo. (Vireo bellii medius) from Texas.

Description of a New Telmatodytes. (T. palustris thryophilus).

Description of a New Genus and Species of Trochilidæ. (Aeronympha presantis).

The North American forms of Astragalinus psaltria (Say).

Notes on the generic name Hylophilus.

Seven new birds from Paraguay.

The Ruff (Pavoncella pugnax) in Indiana. By Ruthven Deane. From the Auk, XXII, October, 1905, pp. 410-411.

The Postglacial Dispersal of the North American Biota. By C. C. Adams.

Ontario Ornithological Notes. By A. B. Klug. From the Ottawa Naturalist.

Notes on the Nomenclature of certain Genera of Birds. By H. C. Oberholser.

A New Subspecies of Ground Dove from Mona Island, Porto Rico. By J. H. Riley. From Proceedings U. S. Nat. Mus. No. 1418.

A Hyper-laken Migration Route. By P. A. Taverner. From Bulletin Mich. Orn. Club.

Description of a new Sylvietta. By H. C. Oberholser.

The Mammals and Summer Birds of Western North Carolina. By H. C. Oberholser.

CURRENT PUBLICATIONS RECEIVED.

American Ornithology, Vol. V, Nos. 6, 7, 8, 9, 10, 11.

Bird-Lore, Vol. VII, Nos. , 4, 5.

Boys and Girls, Vol. V, Nos. 1, 2.

Condor, The, Vol. VII, Nos. 4, 5.

Journal of the Maine Ornithological Society, Vol. VII, No. 3.

Maine Sportsman, Vol. XII, Nos. 141 to 147.

Nature-Study Review, Vol. 1, Nos. 1 to 6.

Ornithologisches Monatschrift, Vol. XXX, Nos. 5, 6, 7, 8.

Monthly Bulletin, The, Pennsylvania State Department of Agriculture. Vol. III, Nos. 4, 5.

Oologist, The, Vol. XII, Nos. 9, 10.

Warbler, The, Vol. I (Second series), Nos. 3, 4.

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